TARIFF COMMISSION
GOVERNMENT OF INDIA

REPORT

ON

The Continuance of Protection to the Sericulture Industry

BOMBAY
1974

सत्यमेव जयते

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PERSONNEL OF THE COMMISSION

Shri D. P. Anand	*Chairman*
Shri Pramod Singh	*Member*
Shri M. B. Palekar	*Member*

SECRETARY

Shri S. S. Saxena

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE

New Delhi, the 23rd *Nov.,* 1974.

RESOLUTION

Tariffs

No. 13(1)-Tar/74.—The Tariff Commission has submitted its Report (1974) on the continuance of protection to the Sericulture Industry. The Commission's recommendations and the Government's decisions thereon are given in the Table below :—

TABLE

Sl. No.	Recommendation of the Tariff Commission	Decision of the Government
(1)	(2)	(3)
1	Protection to the Industry should be continued for another five years *i.e.* upto 31st December, 1979. During the course of that year a comprehensive study of the industry should be undertaken to see whether the time has not finally come to discontinue the protection from 1-1-1980.	Accepted. Necessary legislation will be undertaken in due course.
2	The protective duty on Raw Silk [I.C.T. Item 46(a)] may be maintained at the existing rate of duty, namely, 30 per cent *ad valorem* (exclusive of the auxiliary duties of customs) upto 31st December, 1979.	Accepted. Necessary legislation will be undertaken in due course.

	(2)	(3)
	The existing rates of protective duties on other products of the Sericulture Industry, namely, silkworm cocoons [I.C.T. Item 46(b)], silk waste [I.C. T. Item, silk yarn [I.C.T. item 47] and silk fabrics [I.C.T. Item 48], may also be continued for a further period of five years ending 31st December, 1979.	Accepted. Necessary legislation will be undertaken in due course.
4	Whatever progress the Sericulture Industry has made, though not spectacular, has been largely possible because of the protection it has been enjoying. It is obvious that protection cannot be continued indefinitely but this is hardly the time to withdraw it as the Industry appearrs to have reached a crucial stage of rapid development.	Noted.
5	The State Government of Karnataka has complained that though the crash programme has been approved by the Government of India, the rate of flow of funds has been extremely slow and has, therefore, requested the Tariff Commission to make a strong recommendation in this regard. It is brought to the notice of the Government of India.	Government have taken note of the recommendation for implementation as far as possible.
6	The Commission hopes that some effective action in institutional 'and/ or otherwise will be taken by the Government in consultation with the Central Silk Board to stabilize the prices of raw silk as a long term measure in such a way as to ensure a fair price to silk worm rearers and steady supply of raw silk to consumers at reasonable prices.	Government have taken note of the recommendation for implementation as far as possible.

(1)	(2)	(3)
7	The Central Silk Board should undertake a thorough study of the marketing practices in the primary cocoon markets in different states with a view to suggesting to the concerned State Governments proper regulation of these markets on some uniform lines with suitable legislative backing if necessary so that the reeling units get adequate supplies of quality cocoons and rearers a fair price linked to the quality of their cocoons.	Noted. Attention of Central Silk Board and the State Governments is drawn to the recommendation.
8	The Commission hopes that the Central Silk Board will work out a well coordinated plan of action for making filatures work on efficient commercial lines and ensure its effective execution by the concerned State authorities.	Attention of the Central Silk Board & State Govts. is drawn to the recommendation.
9	The Commission hopes that the Central Silk Board will take note of the complaints that the Spun Silk Mills are not getting sufficient quantity of high grade silk waste and that the quality of the yarn marketed by them is not of international quality and suggest suitable remedial steps to the State Governments concerned.	Attention of the Central Silk Board and State Governments is drawn to the recommendation.
10	It is necessary that the Silk Conditioning and Testing Houses at Bangalore and Srinagar are modernised and properly equipped for regular testing of filature raw silk so that the filature units are in a position to attach certificates indicating the results of the tests to their consignments of raw silk released for sale. The Central Silk Board should examine this issue with a view to taking suitable action in the matter.	Attention of the Central Silk Board is drawn to the recommendation.

(1)	(2)	(3)
11	Filature sector of the Sericulture Industry, which alone has the potential to produce raw silk of international quality to meet the increasing demand for exports and to reduce the country's dependence on imports of quality silk deserves careful nursing.	Attention of the Central Silk Board and State Governments is drawn to the recommendation.
12	Since the major effect of regulation of imports and tariff protection to the Sericulture Industry is to restrict the competition which the indigenous filature silk has to face from imported silk, the problems relating to the working of the filatures require urgent attention with a view to taking remedial action for reducing the cost of production and improving the quality of the filature silk.	Attention of the Central Silk Board and the State Governments is drawn to the recommendation.
13	The Commission hopes that the question of effective co-ordination between the Research Institutions and the State Sericulture Departments, which alone can ensure rapid dissemination of new techniques, would receive all the attention it deserves from the Central Silk Board and the concerned State Departments.	Attention of the Central Silk Board and the concerned state Governments is drawn to the recommendation.
14	The Central Silk Board's grievance against the lower utilisation of allocated funds on sericulture by the States is to some extent justified. The States would no doubt like to have discretion to reallocate funds among non-specified items according to the changes in priorities necessitated by circumstances prevailing in the States. However, in view of the large potential of the sericulture industry for creating gainful employment in rural areas, it appears necessary for the States to have a more sympathetic and long term policy in respect of expenditure of funds on sericulture.	Government have taken note of the recommendation. Attention of the State Governments is drawn to the recommendation.

REPORT ON THE CONTINUANCE OF PROTECTION TO THE SERICULTURE INDUSTRY

1. Introduction

1.1. The Sericulture Industry was initially granted tariff protection in 1934 on the recommendation of the pre-war Tariff Board. The Second Inquiry was undertaken in 1938 but war broke out before Government could take a decision on the recommendations of the Tariff Board. The protection granted initially was, however, continued upto the end of March, 1949. Since then, two inquiries by the Interim Tariff Board in 1949 and 1951 and five inquiries by the Tariff Commission in 1953, 1958, 1963, 1966 and 1969 were undertaken and on the recommendations of the Tariff Board/Commission, the protection to the Sericulture Industry was extended by periods of years upto the 31st December, 1974.

1.2. In our 1969 Report, besides recommending continuance of protection to the Sericulture Industry for a further period of five years ending the 31st December, 1974 at the then existing rates of protective duty, we had suggested that the progress of the industry should be reviewed at biennial intervals. Government accepted this recommendation also. Accordingly, we undertook a Review and submitted a Report to Government in June 1973. We observed that the existing rate of protective duty on raw silk afforded the requisite cushion to face any competition from imports and, therefore, recommended that the rates of protective duty on raw silk and silk products covered by I.C.T. Items Nos. 46, 46(1), 47 and 48 might remain in force for the rest of the period upto the 31st December, 1974. Government accepted this recommendation by the Ministry of Commerce Resolution (Tariffs) No. 13(1)-Tar/73, dated the 14th November, 1973. Relevant extracts from the First Schedule to the Indian Tariff Act, 1934 showing the current rates of protective duty on raw silk, silk yarns and silk fabrics are given in Table 1.

1.3. The period of protection granted to the Sericulture Industry is due to expire on the 31st December, 1974. The present inquiry has, therefore, been undertaken by us *suo motu* under Section 11(e) read with Section 13 of the Tariff Commission Act, 1951, under which we are authorised to inquire into and report on any further action required in relation to the protection granted to an industry, with a view to its increase, decrease, modification or abolition according to the circumstances of the case.

1.4. In our Biennial Report on the Review of the progress of the Sericulture Industry (1973) (hereinafter referrd to as Review Report of 1973) referred to in paragraph 1.2 above we made certain Ancillary Recommendations. Government in their Resolution accepted or noted these recommendations and invited the attention of the concerned interests and authorities for implementation. The present position regarding the extent to which each of these ancillary recommendations has been implemented is dealt with in the succeeding paragraphs at the appropriate places.

TABLE 1

Extract from the First Schedule to the Indian Tariff Act, 1934

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rates of duty
				The United Kingdom	A British Colony	Burma	
1	2	3	4	5	6	7	8
46	Silk-worm cocoons suitable for reeling : raw silk (not thrown).						
	(a) Raw Silk	Protective	30 per cent *ad valorem*	..	..	10% *ad valorem*	December 31st, 1974.
	(b) Silk-worm, Cocoons suitable for reeling.	Protective	50 per cent *ad valorem* Plus Rs. 8.80 per kg.	..	..	..	December 31st, 1974.
46(1)	Silk waste (including cocoons unsuitable for reeling, silk nolis and pulled or garnetted rags).	Protective	50 per cent *ad valorem plus* Rs.8.80 per kg.	..	..	10% *ad valorem*	December 31st, 1974.

1	2	3	4	5	6	7	8
47	Silk yarn including silk sewing thread	Protective	50 per cent *ad valorem plus* Rs. 8.80 per kg.	..	..	10% *ad valorem*	December 31st, 1974.
48.	Fabrics, not otherwise specified, containing more than 90 percent of silk, including such fabrics embroidered with yarn or thread of man-made fibres	Protective	100 per cent *ad valorem plus* Rs. 18.70 per kg.	..	..	20% *ad valorem*	December 31st, 1974.

NOTE : Under the Finance Act, 1974 Auxiliary duty of customs at 5 per cent of the value of goods is leviable on all the above items.

2. Method of Inquiry

2.1. The questionnaires to the State Governments concerned and the Central Silk Board were issued in January 1974. Questionnaires to mulberry cultivators, graineurs, rearers of silk worms, producers of raw silk, silk throwing and twisting factories, spun silk mills and manufacturers of silk fabrics and letters to Research Institutions, State Directors of Sericulture and other concerned Government and Semi-Government Departments were issued in February 1974. A press Note was issued on the 25th February, 1974 inviting parties interested in the Inquiry to send their views to us. A list of firms, bodies and associations to whom questionnaires/letters were issued and those who replied is given in Appendix I.

2.2. Data with regard to the cost of production of filature raw silk were called for from all the filature units and the data received were scrutinised by our Cost Accounts Officer. Estimates of fair price for the future were worked out by us for selected filature units in the predominant silk producing State of Karnataka.

2.3. A public inquiry into the industry was held at the Commission's office on the 21st June, 1974. A list of those who attended the inquiry and gave evidence before us is given in Appendix II.

3.1. **Introduction :**

3. Progress and the present position of the Industry

3.1.1. In our Review Report (1973) we had broadly covered the progress of the industry during the period 1969 to 1971. In this Report we propose to cover the progress during the subsequent two years 1972 and 1973 or for the financial years 1971-72, 1972-73 and 1973-74, as the case may be.

3.1.2. In 1967 India occupied fourth place in the production of Mulberry Raw Silk amongst sericultural countries and produced 5 per cent of the world production. In 1972, though the percentage share of India in world, production remained unchanged, it occupied fifth place among the sericultural countries as may be seen from the following table:

TABLE 3.1

World Production of Mulberry Raw Silk in 1967 *and* 1972

(In tonnes)

Sl. No.	Country	Production in 1967	Percentage	Production in 1972	Percentage
1	Japan	18,926	56	19,137	49
2	Peoples Republic of China .	7,500	22	11,124	28
3	U. S. S. R. . . .	2,833	8	3,000	7
4	India	1,668	5	2,119	5
5	South Korea . . .	1,550	4	3,656	9
6	Others	1,396	5	964	2
	TOTAL .	33,873	100	40,000	100

While world production increased by 18 per cent from 1967 to 1972, production in India during that period increased by 27 per cent.

3.1.3. The National Commission on Agriculture in its Interim Report on Sericulture submitted to Government in August, 1973, has recognised sericulture as an important activity necessary for raising the level of income of weaker sections of the population particularly the small and marginal farmers. According to the Commission, by developing sericulture, an important field of agriculture production would be kept open to the small and marginal farmers in certain selected areas of the country which can provide them means of sustenance above the level of minimum need. In the opinion of the Commission, there are large tracts in the dry farming belt in the South West region of the country which is chronically backward requiring rapid development for uplifting the standards of the people inhabiting in this region and Sericulture would be a suitable occupation to quicken the economic growth rate. The Commission has recommended programmes of intensive sericulture by irrigation and a subsidy of 25 per cent to the sericulturists for irrigation facilities. As growing of mulberry by itself is not likely to confer much benefit on farmers, it has suggested an integrated approach from the raising of mulberry to the disposal of raw silk for the purpose of credit support, and has also recommended the setting up of functional cooperatives in all the sericultural areas to derive substantial benefit from the Agriculture Credit Wing of the Reserve Bank of India.

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3.1.4. The Central Silk Board is entrusted with the task of the development of the Sericulture Industry. But Sericulture being a State subject, the schemes for its development are formulated and implemented by the State Governments. However, allocations for development of the industry under the Plan, are made on the basis of Annual Plans as approved by the Central Silk Board which also co-ordinates the development of the sericulture industry in various States. The Board is also directly responsible for organising sericulture research, post-graduate training, basic seed production, pre-shipment inspection of exportable silk goods, standardisation and quality control. The States receive Central assistance in the form of grant and loan (30 per cent grant and 70 per cent loan). Sericulture falls under the non-specified category and the

State Governments are free to divert the outlays. In this connection the Central Silk Board has brought to our attention that generally low priority is accorded by the States to the industry. In its view, this position can be bettered if the central assistance is routed through the Board. Its efforts to get the present procedure revised are reported to have so far not been agreed to by the Government of India.

3.1.5. We are informed by the Central Silk Board that there has been low utilisation of Plan provision for sericulture by the States being 54 per cent in 1971-72, 63 per cent in 1972-73 and 23 per cent in 1973-74 as indicated in the following table:—

TABLE 3.2

Allocation and Expenditure on Sericulture

(Rs. in lakhs)

Year	No. of Schemes		Allocation				
	Approved by C.S.B.	Implemented by States	Proposed by C.S.B.	Planning Commission's allocation	State's allocation	Expenditure	Utilisation (7 as % 5)
1	2	3	4	5	6	7	8
1971—72 .	159	112	185.86	196.10	145.00	107.48	54
1972—73 .	177	137	266.54	227.34	193.29	142.72	63
1973—74(upto Dec., 1973)	188	123	283.25	338.96	197.53	80.25	23

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The reasons for low utilisation are stated to be such as late sanction of the schemes by the State Governments, general cut in States' Annual Plans, delay in acquisition of lands and construction programme, delay in filling up the sanctioned posts, delay in transfer of forest land and ban on creation of new posts. The actual achievements along with the targets set during the 4th Plan period are indicated below :

	Original Target	Revised Target	Actual Achievement
Production of raw silk (Lakh kgs.) .	31.00	30.00	30.75
Exports of silk goods (in crore Rs.) .	20.00	63.00	60.57
Additional Employment (Lakh persons).	4.00	4.00	4.00
Total Employment . . .	32.00	36.00	36.00

It was indicated by the Central Silk Board that the achievements when compared with the targets, appear to be satisfactory desipte lower utilization of funds because the achievements depend not merely on the actual utilization of allotted funds, but upon a number of other factors like favourable or unfavourable weather conditions during the agriculture season, market conditions etc. However, had the original financial allocation indicated in Table 3.2 above been adhered to and not reduced, the achievement in the respective fields would have been higher than what they actually were. We feel that *the Central Silk Board's grievance against the lower utilization of allocated funds on sericulture by the States is to some extent justified. The states would no doubt like to have discretion to reallocate funds among non-specified items according to the changes in priorities necessitated by circumstances prevailing in the States. However, in view of the large potential of the sericulture industry for creating gainful employment in rural areas, it appears to us necessary for the states to have a more sympathetic and long term policy in respect of expenditure of funds on sericulture.*

3.2. **Moriculture :**

3.2.1. *Mulberry cultivation—Bush type*

3.2.1.1. The following table gives the total area under Mulberry cultivation as at the end of 1968 and as at the end of 1973. Statewise data are given in Appendix III-A.

TABLE 3.3

Area under Mulberry Cultivation

(In hectares)

At the end of	Area under irrigation	Area under rainfed conditions	Total
1968	16,962	76,322	93,284
1973	30,421	79,843	1,10,264

Over the five year period, the total area has increased by 18 per cent. But the area under irrigation has increased by 80 per cent. In paragraph 4.2.11 of our Review Report (1973) we recommended that all out efforts be made to expedite irrigational facilities wherever possible to the existing areas which were rainfed, by enlisting the support of the banking institutions.

3.2.1.2. The progress made in different States in regard to the extension of irrigational facilities and other aspects of Mulberry cultivation is set out below :—

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Karnataka

In this major sericultural State, the total area has increased from 83,800 hectares in 1968 to 96.141 hectares in 1973 and that under irrigation from 16,300 hectares to 26,380 hectares. The increase in the latter was as high as 62 per cent. The State Government has informed us that the package practices method advocated by the Central Sericultural Research Institute, Mysore to improve the leaf yield is rapidly catching up with the sericulturists. The advantages of package practices were demonstrated to the sericulturists only in 1971-72. Since then, nearly 50 per cent of the sericulturists who own irrigated mulberry gardens in the Kolar and Bangalore Districts are reported to have taken to this system. The package practices method consists of application of fertilisers, close plantation of mulberry, harvest and preservation of leaves, chowkie rearing under controlled conditions by adopting box-rearing methods and reducing the number of feeds and liberal spacing of worms. The package practices have reportedly improved the cocoon yields qualitatively and quantitatively by 25 per cent over the traditional methods. There was a great demand for improved variety of M-5 Mulberry cuttings from the sericulturists and it is expected that there would be a sizeable area under M-5 variety by the end of 1974-75. The State Government has not fixed any target for the Fifth Five Year Plan in regard to the area to be brought under mulberry cultivation. A target of sinking 3500 wells per year so as to convert rainfed gardens to irrigated gardens has been fixed. It is expected that each well would provide irrigation for one hectare of mulberry garden. On this basis about 17,500 hectares of rainfed mulberry are proposed to be converted into irrigated mulberry in the Fifth Plan period. With irrigation facilities and the adoption of the package practices, the yield of leaves per hectare of irrigated garden is expected to increase to about 30,000 kgs. We are informed that during 1971 the States Government of Karnataka formulated a ten year crash programme so as to increase the production of raw silk from 18 Lakh Kgs. to 35 Lakh Kgs. at an estimated total investment of Rs. 80 crores. This was approved by Central Government. The funds required were proposed to be drawn from the Commercial Banks. With a view to reduce the burden of interest, it was proposed to subsidise the interest charged by the Commercial Banks to the extent of 3% by the State and Central Government on 50:50 basis. The Bankers came forward with certain suggestions. They were that (i) Co-operative Societies should be organised for silk worm rearers and silk reelers separately (ii) overlapping should be avoided by the demarkation of the area of operations of each Bank (iii) there should be an extension support for the implementation of the scheme (iv) production and marketing should be linked to facilitate easy recovery of loans advanced by the Banks and (v) the Banks should be provided with refinance facilities from the Reserve Bank of India and Agricultural Refinance Corporation. On the basis of these suggestions, the State Department of Sericulture organised

Co-operative Societies for silk worm rearers and silk reelers separately. In order to get loans from the Commercial Banks Co-operatives approached the Registrar of Co-operatives to open accounts in the Commercial Banks. The Registrar in a few cases permitted the opening of accounts. The Reserve Bank of India raised an objection against this on the ground that it did not favour proliferation of single purpose societies and that the Scheme of Commercial Banks financing primary Agricultural Co-operative Societies did not include Sericultural Co-operative Societies. The matter was again taken up by the State with the Reserve Bank of India and after a detailed study of the needs of the Sericulture Industry the Reserve Bank of India gave clearance to the Scheme. The Reserve Bank of India have also issued certain guidelines for organisation of Sericultural Co-operative Societies and Silk Reelers Industrial Co-operative Societies and the reorganisation of Societies already organised so as to make them viable. The Agricultural Refinance Corporation has agreed to provide refinancing facilities to Commercial Banks financing the sericulture Development under the crash Scheme. As against the original estimates of credit needs of Rs. 80 crores, the Reserve Bank of India's estimates were lower at Rs. 67 crores. It has been stated that upto the end of 1973-74, 58 Silk Worm Rearers Co-operative societies, 15 silk Reelers Industrial Co-operative Societies and one licensed Seed Preparers Co-operative Society have been organised. It is also proposed by the State Government to provide financial assistance to all the related activities connected with Cocoon and Silk production so that there may be an integrated approach to the programme of development. *The State Government has complained that though the whole programme has been approved by the Government of India, the rate of flow of funds has been extremely slow and has, therefore, requested the Commission to make a strong recommendation in this regard. We are hardly in a position to comment on this suggestion we, however, bring it to the notice of the Government of India.*

West Bengal

The total area under mulberry cultivation has only marginally increased from 5,566 hectares in 1968 to 5766 hectares in 1973 but the irrigated area has increased to a significant extent from 85 hectares to 506 hectares during the period. In paragraph 4.2.4. of our Review Report (1973) we laid emphasis on the urgent need to redouble efforts in this State not only to arrest the declining trend but also to recover the lost area under mulberry cultivation in that State. We are now informed that the depression in mulberry cultivation in West Bengal during 1970-71 was due to abnormal conditions of floods. The high increase in the price of raw silk subsequent to 1970-71 is reported to have given a fillip to the sericultural activity in the State and the State has also initiated a crash programme for the Fifth Plan period to extend mulberry acreage by about 1250 hectares and to produce 50,000 kgs. of high grade raw silk of international quality. It is also contemplated to take up the following measures to increase the tempo of mulberry cultivation in the State:

(i) Adequate irrigation facilities will be provided through minor irrigation schemes.

(ii) Government will arrange to create a quota of fertilisers exclusively for mulberry by negotiating with the existing supply source, like Fertiliser Corporation of India etc.

(iii) Incentive scheme for new plantation will be initiated and farmers may be given assistance in the form of grant of reasonable amount for bringing more land under cultivation.

(iv) Block plantations preferably of 100 acres or less will be established to create adequate mulberry resources in public sector for use by landless farmers and educated unemployed for silkworm rearing.

The Central Sericultural Research Station, Berhampore, has advocated various practices for increasing the yield of leaf. These include new methods of planting, use of improved varieties and agronomical practices. In the Fifth Plan programme the Government of West Bengal is reported to have placed special emphasis on providing the farmers with extension and service facilities for rearing bivoltine races. It aims at increasing the production of quality raw silk from the present 4,000 kg. to 50,000 kg. annually at the end of Fifth Plan and the following integrated project has been spelled out for the purpose:—

(i) Infra-structural facilities will be extended to the bivoltine rearers by providing margin money to enable them to ensure institutional finance to the required extent.

(ii) Incentive will be granted to the bivoltine rearers for supplying adequate quantity of cocoons to the State Failure which is presently running short of raw material for running the installed capacity of 100 basins for the whole year, as also to the Cottage basins, and

(iii) Co-operative servicing units will be established for providing the farmers with the facilities of incubation and rearing of layings up to third stage; these Co-operatives will be given margin money for securing institutional finance.

Jammu & Kashmir

This State has plans to plant 20 lakhs mulberry trees in the Fifth Plan period and to ensure a survival rate of 50 per cent by planting them in suitably selected sites on canal banks, vacant Government lands and protected lands of rearers. A net work of mulberry nurseries is proposed to be established to increase the production of saplings and introduction of sericulture in new areas. The productivity of the existing trees is proposed to be improved by a systematic programme of manuring and pruning of 2.15 lakh trees during the Fifth Plan period. Simultaneously, the State has a proposal to cultivate bush type mulberry also in 600 acres of available forest lands in the vicinity of rearing villages.

Assam

The Assam Government's target for mulberry cultivation for the Fourth Plan period was laid down at 800 hectares approximately and the final achievement was 700 hectares approximately. The State Government has a target of additional 500 hectares to be brought under mulberry cultivation during the Fifth Plan period and the yield of leaf is expected to be 9000 kg. to 12000 kg. per hectare. To increase the yield of mulberry leaves, the Assam State Directorate of Sericulture has established Collective mulberry gardens covering 10 to 30 acres in important mulberry silk growing areas. Sprinklar irrigation of mulberry areas in collective mulberry gardens and semi-farms is also being taken up by the State Government. As a result, the yield of mulberry leaves has gone up to 12,000 kg. per hectare. To encourage the rearers, the Assam Government supplies silk worm food plants and seeds free of cost. Moreover, free mulberry leaves are supplied to the rearers near about the mulberry gardens. Reeling charkhas are also supplied at 1/5 of the cost and facilities for reeling are also being given in Government reeling units. Loans up-to Rs. 2500 are also given to the rearers who are cultivating more areas under special employment programme for cocoon production etc.

Tamil Nadu

The Fourth Plan target of the State Government was to bring 4000 hectares under mulberry cultivation. From 1971 to 1973, an area of 2342 hectares was brought under cultivation with irrigation facilities for 620 hectares. The yield of leaves per hectare was 12,000 kg. on an average. The State Government is having a target of 6,000 hectares to be brought under cultivation during the Fifth Plan period out of which 25% will be under irrigated conditions. The yield per hectare is also to be raised to about 20,000 kgs. of mulberry leaves.

Uttar Pradesh

In Uttar Pradesh, Mulberry Farm Nurseries have been established in the Government sector and are irrigated. It has been stated that owing to pressure on land for growing of food crops, the farmers do not spare their lands for mulberry plantation. They plant mulberry trees on the boarders of the fields, backyards of their homes, etc. The trees are rainfed.

The yield of leaves in farms was 12,000 kgs. per hectare. The yield per tree is about 12 kgs. per year. In order to encourage the sericulturists, the State Government has introduced the following measures viz. (i) supply of chowkie reared worms to the rearers free of cost, (ii) supply of two year old mulberry saplings free of cost (iii) training of sericulturists for three months with stipend, (iv) technical guidance in rearing and plantation, and (v) providing facilities to rearers by supplying rearing appliances, petty loans etc. by the establishment of a Co-operative Organisation at Dehra Dun.

Meghalaya

Meghalaya Government has stated that Meghalaya's predominently suitable conditions hold out immense possibilities for development of sericulture industry. Subsequent to the attainment of full statehood, the administration is having a fresh look in the background of the socio-economic potential and regional needs. At present the industry is providing part or whole time employment for 10,000 people. Expansion of existing sericultural farms at Shillong, Ummulong, seed farms at Mawdymai, grainages at Nongpoh and Tura. and reeling units at Shillong and Tura have also been taken up since 1971. The State Government established 27 collective mulberry gardens in selected localities for the benefit of the village rearers with facilities like land, fencing, manure and saplings. As a result of these programmes, the production of mulberry cocoons is estimated to reach 8,500 kgs. and that of DFLs 2.8 lakhs.

Madhya Pradesh

Since 1971, the Government of Madhya Pradesh has introduced several schemes for development of the sericulture industry. These include schemes for training of personnel in the industry, strengthening the existing seed farm and grainage, expansion of area under cultivation as well as modernisation of existing farms. The State Government's target for mulberry cultivation during the Fourth Plan period was 300 hectares and final achievement was 185 hectares with an yield of 12,000 kg. per hectare. The target for the Fifth Plan period is to cultivate another 400 hectares with irrigation facilities for 350 hectares. The yield per hectare is expected to go up from 15,000 kgs. in 1974-75 to 16,000 kgs. in 1978-79.

Orissa

Orissa is principally a non-mulberry silk producing State. Mulberry cultivation and silk worm rearing has been introduced in the State on an experimental basis from 1973-74. Cuttings of improved varieties of mulberry plants obtained from Karnataka have been planted at Potangi in Koraput District which has been found suitable for rearing of mulberry silk worms.

3.2.2. *Mulberry Trees.*—As at the end of 1968, the total number of rearing trees was 36.68 lakhs and the number as at the end of 1973 is 48.04 lakhs, an increase of 29 per cent. The information according to States is given in Appendix III-B. The largest number of trees, namely 27.3 lakhs is in Jammu and Kashmir.

3.2.3. *Yield of leaves.*—No information regarding average annual yield of leaves from mulberry trees is available except that in Himachal Pradesh it is estimated to be 17 kg. per tree. As regards *the average* (bush type), the available information is given below:—

Average Yield of Mulberry leaves

(In kg. per hectare)

State	1968		1972	
	Rainfed	Irrigated	Rainfed	Irrigated
Karnataka . . .	3,000	10,000	3,000	15,000
West Bengal . . .	15,500	17,000	16,000	18,000
Assam	10,000	N.A.	9,000 to 12,000	N.A.
Uttar Pradesh . .	5,000	7,000	5,000	7,000
Tamil Nadu . . .	3,250	5,248	4,000	9,500
Manipur . . .	2,700	N.A.	N.A.	3,000

It may be seen that there is a marginal improvement in West Bengal and some improvement in Tamil Nadu, and practically no improvement in other States.

3.2.4. In paragraph 4.3.4. of our Review Report (1973) we had pointed out the existence of wide gap in the application of the research results to the field due to non-existence of extension wings and recommended that extension wings should be expeditiously set up at each Research Station for undertaking field trials and other propagation work. The Central Silk Board has informed us that necessary sanction for setting up extension wings at Research Stations has since been given by Government. The Extension Wing for the Central Sericultural Research and Training Institute, Mysore, was started in June, 1973, that for the Central Sericultural Research Station, Berhampore and the Central Tasar Research Station, Ranchi in November 1973. Requests have been received by the Central Silk Board for the setting up of such Extension Centres from all the important sericultural areas of the States.

3.3. Seed production and Rearing of Silkworms:

3.3.1. *Mulberry Sector.*—The improvement in the production of Disease Free Layings (DFLs) over the period 1968 to 1973 in each of the principal Mulberry States is discussed below:—

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Karnataka

The Government of Karnataka has informed us that steps have been taken recently to introduce improved methods of rearing. In order to reduce mortality rate upto the second moult, the paraffin paper method of rearing has been adopted. Regarding rejuvenation of races or evolution of new breeds of silk worms considerable work has been done by the Central Sericultural Research and Training Institute, Mysore. The two bivoltine races namely "Nanung-6-D" and "Kalimpong A", which were released in 1972 for field trials, have given encouraging results and have opened up the possibilities of rearing bivoltine races under the semi-tropical conditions prevailing in the State. In 1968, there were 505 grainages (55

Government and 450 licensed) and the total DFLs produced were 98.3 million. The production in Government grainages was 33 per cent. In 1973, the number of grainages increased to 693 (73 Government and 620 licensed) and production of DFLs to 127.6 million, the Government grainages accounting for 25 per cent only. The average number of cocoons produced per kg. of seed use, rose to 1279 in 1973 as against 1153 in 1968. This shows rejuvenation of races and improvement in the quality of seeds. Use of infested seed is prohibited in this State. It has been stated that owing to sudden increase in rearing activity, there is an unsatisfied demand for layings.

West Bengal

As against 31 grainages (7 Government and 24 private) in 1968, there were 251 (13 Government and 238 private) grainages in 1973. Production of Layings in 1968 was 2.89 million Government grainages accounting for 17 per cent. In 1973, the production increased to 27.3 million, 13 per cent being the production at Government grainages. Production of cocoons per kg. of seed used was 756 in 1968 but was less in 1973 at 731. Production of seed is not subjected to compulsory testing in the State. In paragraph 4.6.3 of our Review Report (1973) we reiterated our earlier recommendation made in our 1969 Report that it would be desirable if the State Government of West Bengal could enact early legislation to ensure that the seed producing grainages are licensed and adequately equipped for testing layings. The seed legislation in this State is yet to be enacted. We are informed that the delay in the enactment of a seed legislation in the State is primarily due to lack of adequate seed organisation. Although some attempts were repeatedly made during the Fourth Plan period to build up the seed organisation, sufficient progress could not be made owing to financial stringency. This position is, however, expected to be remedied during the Fifth Plan period by (i) the setting up of isolated seed areas for pure races, (ii) reorganising the nurseries and farms (iii) introducing selected seed rearers, (iv) licensing seed preparers and (v) establishing central grainage for large scale production of industrial silk worm seed. The State Government proposes to bring in legislation prohibiting the use of unexamined seed when the seed organisation reaches a fairly self-sufficiency limit.

Jammu & Kashmir

The present system in this State of conducting rearing on floor is stated to be responsible among other factors for the high rate of mortality. The State Government has formulated certain schemes changing the rearing system to 'machan' with a view to reduce the mortality rate. Evolution of new breeds is being attended to by the Central Silk Board. The State is not self sufficient in seed supply. The major portion of the requirements are met locally and the remaining portion is imported from Japan. There were 7 Government grainages in 1973 as against 6 in 1968. There are no private grainages in this State. Production of layings increased to 3.9 million in 1973 as against 2.3 million in 1968. The State, being not self sufficient in seed production, imported 1.5 million layings in 1973 as against 1.3 million layings in 1968. The number of cocoons produced per kg. of seed slightly increased to 736 in 1973 as against 704 in 1968. In paragraph 4.6.5 of our Review Report (1973) we strongly recommended that immediate steps be taken to arrest the continued deterioration in this State in the ratio of cocoons used per kg. of raw silk. The Central Silk Board has informed us that there has been an appreciable increase in the quality of mulberry leaf and also in the quality of silk worm seed distributed for industrial rearings and as a result, the Renditta (number of kgs. of cocoons used for production of one kg. of raw silk) has improved. As against the Renditta of 15 in 1969-70 and 1970-71 and 17 in 1971-72, that obtained in 1972-73 was low at 13.4 and it is anticipated to be 12.5 in 1973-74.

Assam

In Assam, the Mulberry silk worm seeds are generally produced in the Government farms and grainages and distributed to the silk worm rearers at nominal cost. Technical assistance is also provided to the farmers through technical officers stationed in these areas. Supply of Chowkie worms in important mulberry growing areas is also being taken up. Open type rearing house, as in Japan is constructed in some of the Government farms on an experimental basis. The Government have also taken all possible steps to supply good combinations of univoltine hybrid seeds during the spring season. The Government farms are also conducting experiments for fixation of suitable races for different seasons and localities. Since the separation of Meghalaya, adequate supply of univoltine hybrid seeds in time has been a problem to the State. The proportion of DFLs to the total number of layings was approximately only 2-3% in different seasons during 1972 and 1973. Steps are being taken by the Government to prepare healthy hybrid races for production of DFLs.

Tamil Nadu

In Tamil Nadu chowkie reared worms are distributed among sericulturists and all precautions to maintain the temperature and humidity for different stages upto spinning are being taken to reduce mortality and increase the production. The Research Extension Centre at Coonoor has been releasing the new combinations which are being popularised among the sericulturists, besides the races that are released from the Research Station at Mysore under the control of the Central Silk Board. The layings are prepared only in Government Grainages and all of them are tested and only disease free layings are distributed, 10.36 lakhs and 10.81 lakhs of Industrial breed layings, for 1972 and 1973 respectively were prepared in Government Grainages and distributed. The production for every year is being increased by 2 lakhs or as per the requirements of the sericulturists.

Uttar Pradesh

In Uttar Pradesh, the entire quantity of silk worms are reared in the Chowkie rearing centres under the supervision of Government staff. The seed is prepared out of the races supplied by the Central Silk Board. A sound seed organisation has been established in Dehradun, where superior quality of industrial seed is produced for rearing in the villages. Efforts are also under way to improve further the quality of seed and rearing. The present requirement of seed in the State is about 4.25 lakhs DFLs and the production of seed is limited to the requirements and spare quantity, if any, is supplied to other States. During 1972-73 and 1973-74, the State produced 6.12 lakhs and 5.24 lakhs DFLs respectively.

Meghalaya

In Meghalaya, silk worm rearing requires special protective measures like wire netted doors and windows as the State is abound with fly-pests; moreover fluctuating temperature and humidity affect the conditions of the delicate worms. Chowkie rearing is being gradually introduced in the villages with a view to reduce mortality. In order to ensure healthy growth and development of the worm the 'paraffin paper' method of rearing is being utilised in the early stages of rearing in the farms. The foreign Race Seed station in the State is preserving p3 races and suitable combinations are chosen and hybrid prepared for supply to the rearers. The entire demand for seeds in the State is being met by the Government grainage under strict technical supervision and supplied to the rearers as 'Chowkie' worms for better and higher production.

Madhya Pradesh

In Madhya Pradesh, all the eggs required by the Government farms and cultivators are reared upto IIIrd moult in the departmental centres before distribution reducing the mortality of the seeds. The seed station at Pachmarhi is being developed for rejuvenation of races. At present 75,000 DFLs, the entire needs of the State, are produced in the departmental grainages.

3.3.2. *Introduction of Chowkie-rearing Centres.*—In Karnataka the chowkie rearing centres produced 50.67 lakh DFLs during 1972-73. At present, the mulberry leaves required for feeding the young silk worms are being obtained from rearers themselves. Since it is not always possible to secure proper quality of leaves, the State Government is having a proposal to establish model chowkie rearing centres with about an hectare of land with irrigation facilities under the Fifth Five Year Plan. In Assam, so far 14 Chowkie-rearing centres have been established and a total of 0.46 lakh, 0.50 lakh and 0.55 lakh layings have been reared and distributed during 1971, 1972 and 1973 respectively. As a result, general improvement has been noticed in the quality of cocoons. In Meghalaya, chowkie rearing has registered an improvement and a good number of rearers are reported to be coming forward to take up rearing of silk worms. In Orissa, the chowkie-rearing method has been adopted on a small scale. In Tamil Nadu, till 1971 only three chowkie rearing centres were catering to the needs of the sericulturists with 45,000 layings. Since then, new rearing centres were opened and at present they distribute 1.25 lakhs layings.

3.3.3. *Non-Mulberry Sector:*

3.3.3.1. India is the only country in the world where, besides mulberry silk, all the three varieties of wild silks are commercially produced. These are Tasar, Eri and Muga. India accounts for about 10 per cent of the world production of Tasar silk and enjoys world monopoly in the production of Eri and Muga silks. Muga, the golden hued silk, is produced only in the State of Assam. This State is almost the exclusive producer of eri silk too; West Bengal, Manipur, Tripura and Bihar have only small production of eri. During the Fourth Plan Period, the Assam Government took up several schemes for development and expansion of the three varieties of non mulberry silk. A special scheme for additional production of Eri and Muga silk with polyster fibre under the programme of a petro-chemical complex at Bongaigang has also been taken up by the State Government for speedy implementation.

3.3.3.2. The production of the three varieties of non-mulberry silk worm seed and of reeling cocoons during 1973 was as follows :—

Name of the State	Production of silk worm seed (In lakhs Nos.)		Production of Reeling cocoons (In lakh Kahan)	
	1968	1973	1968	1973
(i) *Tasar*				
Bihar . . .	18.41	27.03	N.A.	1.87
Orissa . . .	5.26	2.87	N.A.	0·15
West Bengal . .	1.03	0.42 (Estimated)	N.A.	0.26 (Estimated)
Other States* .	5.16	7.51	N.A.	0·57
TOTAL .	29.86	37.83	N.A.	2.85
			(In lakh Kgs.)	
(ii) *Eri*				
Assam . . .	14.94	13.00	N.A.	2.27
West Bengal . .	1.88	1.42 (Estimated)	N.A.	0.11
Bihar . . .	1.31	4.48	N.A.	0.18
Orissa . . .	N.A.	0.11	N.A.	0.01
Other States* . .	0.68	0.57	N.A.	0.16 (Estimated)
TOTAL .	18.81	19.58	N.A.	2.73
(iii) *Muga*				
Assam only . . .	N.A.	14.50	N.A.	3630 lakh Nos.

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*Madhya Pradesh, Maharashtra, Uttar Pradesh, Manipur and Tripura.

The progress made with regard to seed preparation and rearing in the States of Assam and Orissa is mentioned below:

Assam

As regards Muga industry, the Research sub-station at Dhakuakhana attached to the Research Station at Titabar has been studying the problems of the Muga industry and is still continuing the experiments. As regards Tasar, Oak oriented tasar culture in N.C. Hills in Assam has been taken up recently. Oak is abundently grown in the Garampani area of N.C. Hills district. Experimental rearing of oak in this area is reportedly very encouraging. During the 1973 autumn season about 8000 seed cocoons were distributed. The State Government has drawn up an ambitious plan for the production of 2.40 lakhs tasar cocoons at the end of the Fifth Plan.

Orissa

Orissa is principally a non-mulberry silk producing state. At present, there are 4 tasar seed supply stations and 2 Eri seed supply stations in the State. These seed supply stations are meeting the seed demand of disease free layings. To increase the production of Tasar Cocoons, the tribal Tasar Rearers have been brought in the co-operative fold. At present 24 Tasar Societies with a membership of 17,000 Tasar rearers are working in the State. Further, Organisation of Tasar Rearing in compact forest areas has also been taken up from 1973-74, and one such unit has already been established in the Cuttack District and plans for similar plantations in the Districts of Koraput, Sundargarh and Sambalpur have been taken up. There has been a short fall in the seed supply to the Tasar rearers due to the shortage of natural cocoons in the forest areas. This is gradually being compensated by way of introducing Daba variety of Tasar rearing in place of Bogei variety of Tasar. The Eri seed shortage is stated to be due to physiological reasons. This has been remedied by obtaining new seeds from outside stations in Assam and Bihar. The working of the seed stations has reportedly influenced the traditional rearers in accepting disease free layings in place of self prepared seed out of nature grown seed-cocoons in which they have superstitious belief. Rearing in Orissa is taken up in forest climates and as such the percentage of mortality is high. However, the control rearing methods advocated by the Central Tasar Research Station, Ranchi, are being tried by the State Government in different localities, and efforts are also being made to develop a hybrid from the local races like Bogei and Daba.

3.3.4. *Marketing of Cocoons:*

3.3.4.1. In Karnataka for marketing of the cocoons by rearers, 11 notified markets in Mysore Zone and 45 in the commercial cocoon producing zone were established by the Government under the provisions of the Silk-Worm Seed (Regulation of Production, Supply and Distribution) Act, 1959. According to a decision of the Supreme Court, the rearers are free to take the cocoons to any of the markets in their Zone. The entire set-up was reorganised recently as the transactions in some centres were heavy, necessitating a change in the equipment and shifting of some of the markets. As a result, at present there are 24 markets operating in commercial cocoon areas and 11 in Mysore Zone.

3.3.4.2. In Uttar Pradesh, adequate number of Government Cocoon Markets have been established for purchase of the entire quantity of cocoons produced in the State. In order to assess the quality and weight etc. of the cocoons a committee consisting of departmental officers, a representative of the primary co-operative society and a local influential person is constituted. The rearers bring the cocoons to the market afer proper sorting and grading. The Committee inspects the cocoons and fixes the rates according to the grades.

3.3.4.3. In Jammu & Kashmir, the Silk Industry is under the Government Monopoly and all the cocoons produced are purchased by the State at the rates fixed by the Government. The price of cocoons for the year 1974-75 was raised to Rs. 11 per kg. from the earlier price of Rs. 7.52 per kg.

3.3.4.4. There is no notified market in Assam for sale of cocoons. However, some prominent markets are there for selling eri cocoons. The rearers reel their cocoons by themselves in charkhas. In some compact silk growing areas the Directorate of Sericulture has organised a few number of reeling units for production of better quality raw silk from surrounding rearers according to quality of cocoons. The Meghalaya Government has informed us that due to small quantity of cocoon production, the question of notified markets does not arise. The marketing in Orissa is effected by Rearers Co-operative Societies organised in the State. So far, notified marketing has not been introduced in case of mulberry. In Madhya Pradesh, in view of the limited output, all the cocoons produced by the cultivators are purchased by the concerned department at fixed rates. The existing rates are Rs. 10 per kg. for hybrid cocoons and Rs. 12 for bivoltines. Prior to 1971, only two notified markets were functioning in Tamil Nadu. In order to cope with the increase in production of cocoons two markets each in Dharmapuri District and North Arcot District were opened in 1973. The cocoons are marketed on the basis of quality and the rates are fixed as per renditta assessed at the time of purchase.

3.3.4.5. It appears to us that the problems relating to the marketing of cocoons have not received the attention which they deserve with a view to ensuring quality supply and reducing cost of production of cocoons to reelers. The quality and the cost of raw silk mainly depend on the quality and cost of cocoons. At present, in most of the cocoon markets, the cocoons are not technically evaluated for their quality and as such the price paid for cocoons is not properly linked to the quality. This is neither in the interest of quality conscious rearers nor in the interest of reeling units. At the Public Inquiry, it was brought to our notice that even in the chief Sericultural State of Karnataka, which has its primary cocoon markets regulated since 1959 under the provisions of Silk Worm Seed (Regulation of production, Supply and Distribution) Act, 1959, passed with a view to preventing exploitation by middlemen, the brokers continue to operate in the markets and indulge in the old practice of mixing the harvest of different rearers and bringing the mixed lots to the markets. A considerable quantity of cocoons continues to be sold outside the regulated markets and the provisions relating to the payment of price to the rearers in the presence of market officers is not strictly enforced. The brokers also are said to inflate the prices artificially in the open auctions to the disadvantage of Government filatures and genuine small reelers. In case these reelers withdraw from the market because of high prices, the big private reelers take advantage of the position by making the purchases outside the market at reduced prices. Another important point made was that the cocoons were harvested in an immature state before the pupal formation was complete and as such the yield of raw silk was lower and the cost of production increased. We were told that Japan has got an established system of price fixation of cocoons under which the price is related to some basic quality with premia and discounts for better or inferior quality and that there was an urgent need to work out some such arrangements whereunder the price of cocoons quoted in our markets was linked to their quality. It was also indicated that even if the ideal solution of linking the price directly to the silk content or the renditta, as was done in Japan, were not possible under the present conditions, perhaps some practical arrangement of testing the quality of cocoons on sample basis could be introduced. We feel that there is considerable force and merit in these suggestions. *We, therefore, recommend that the Central Silk Board should undertake a thorough study of the marketing practices in the primary cocoon markets in different States with a view to suggesting to the concerned State Governments proper regulation of these markets on uniform lines, with suitable legislative backing if necessary, so that the reeling units get adequate supplies of quality cocoons and the rearers a fair price linked to the qualiy of their cocoons.*

3.4. **Production of Raw Silk:**

3.4.1. The total production of raw silk of both the varieties in 1968 and for the last two years 1972 and 1973 is given in the following Table:

TABLE 3.4

Production of Raw Silk

(In lakh kgs.)

Year	Mulberry	Non-Mulberry				Total
		Tasar	Eri	Muga	Total	
1968	17.45	2.90	2.12	0.70	5.72	23.17
1972	20.86	2.81	1.46	0.65	4.92	25.78
1973	23.65	3.86	1.40	0.73	5.99	29.64

Between the years 1968 and 1973, there has been increase in production by 30 per cent, the increase in Mulberry variety being significant. Production of Mulberry raw silk accounts for about 80 per cent of the total production.

3.4.2. *Mulberry Raw Silk:*

3.4.2.1 There are three distinct systems of production of mulberry raw silk viz., charkha, cottage basin and filature. Although the production of the latter two improved varieties has increased during 1972 and 1973, the charkha variety still accounts for 60 per cent as may be seen from the following Table:—

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(In lakh kgs.)

	1968	1972	1973
Charkha	11.00	12.89	14.20
Cottage Basin	4.60	6.30	7.17
Filature	1.85	1.67	2.28
TOTAL .	17.45	20.86	23.65

Statewise data on production are given in Appendix IV. Karnataka State contributes 85 per cent of production of mulberry raw silk, West Bengal 11 per cent, Jammu and Kashmir 3 per cent and the other States (Uttar Pradesh, Himachal Pradesh, Tamil Nadu etc.) just one per cent.

3.4.2.2. The distribution of Filature Basins, Cottage Basins and Charkha among the different States in 1968 and 1973 was as follows:—

(In Nos.)

State	Filature Basins 1968	Filature Basins 1973	Cottage Basins 1968	Cottage Basins 1973	Charkhas 1968	Charkhas 1973
Karnataka	1310	1494	3350	7704	4325	7570
West Bengal . . .	100	100	800	102	4540	4621
Jammu & Kashmir . .	749	658	Nil	Nil	Nil	Nil
Uttar Pradesh . . .	30	30	N.A.	10	Nil	Nil
Himachal Pradesh . .	N.A.	20	Nil	Nil	Nil	Nil
Tamil Nadu . . .	Nil	Nil	N.A.	84	N.A	14
Madhya Pradesh . .	Nil	10	Nil	Nil	Nil	Nil
Meghalaya . . .	Nil	Nil	Nil	2	Nil	Nil
TOTAL .	2189	2312	4150	7902	8865	12205

It is seen that though in Karnataka the aim is to replace the existing Charkha by improved Cottage Basins, the number in both the categories has gone up in that State. It has been explained that the rise in demand for dress materials and furnishing fabrics helped production of coarse yarns from Charkhas to be maintained in proportion to the growth of mulberry reeling cocoons.

3.4.2.3. According to the information furnished by the Central Silk Board, there are at present 14 Filature units, 8 in Karnataka, 2 in Jammu and Kashmir, and one each in Uttar Pradesh, West Bengal, Himachal Pradesh and Madhya Pradesh. Available information on the installed capacity and production for 1972 and 1973 in respect of these Filature units is given in **Appendix V.**

3.4.3. *Working and role of the filature sector:*

3.4.3.1. The working of the filature sector came in for some sharp criticism from a representative of the Silk Trade who attended the Public Inquiry. It was argued that since the cost of production of filature units in the Sericulture Industry formed the basis for the purpose of granting protection to the Industry, the working of these units needed close scrutiny. The main drawbacks of the working of the filature units pointed out were that the share of the filature sector in the total production of raw silk was almost stagnant the Renditta for filature remained high between 18 to 21, the cost of production of filature silk continued to increase without any technical improvement in the quality of the silk and the units incurred losses year after year. It was pointed out that low evenness, cleanness and neatness were the major tests in which the indigenous filature raw silk failed to achieve the minimum standards. It was mentioned that, with plenty of breaks in the winding, the automatic looms in the advanced countries were unable to use the Indian raw silk and that generally it did not come even upto the lowest grade 'E' of the International Standard Classification. The representative of the Silk Trade mentioned above furnished to us evidence to show that the tests conducted in 1973 in Zurich (Switzerland) and Yokohama (Japan) in respect of advance samples of the raw silk produced by the Government Silk Filatures, T. Narsipur (Karnataka), indicated poor results. Since rejection of the goods by foreign buyers was certain the firm had to drop its plan of exporting Indian filature silk though the international prices of raw silk had reached a record level in 1973. It was alleged that this sort of situation had continued for years as there was no genuine attempt to remove the various defects in the working of the filature and improve the quality.

3.4.3.2. As against this, a number of points were made in defence of the filature sector by the representatives of the Government of Karnataka and the Central Silk Board. It was asserted that the filature units had made some progress despite a number of handicaps under which they worked. The total production of filature silk in the country had increased from 1.77 lakh kgs. in 1963 to 1.85 lakh kgs. in 1968 and to 2.28 lakh kgs. in 1973. The main handicap of the filature units was their inability to secure the right type of raw materials viz. cocoons from the open market at reasonable prices. The filatures had to face severe competition from other reelers viz., owners of charkha and cottage basins in the private sector, which still account for between 85 to 90 per cent of the total production of the mulberry raw silk in the country. In the procurement of cocoons, the other reeling units had an advantage over the Filatures in that they could select the best as their individual requirements were smaller while the filatures, being large scale buyers, had to go in for all types of cocoons to keep themselves running. In times of scarcity of cocoons, while the other establishments closed down, the Filatures could not be closed as Government is keen to keep the workers employed. As a result, with no selection and sorting of the cocoons, the silk reeled out of random lots of cocoons was bound to vary in quality. Certain financial advantages also accrued to other reelers on account of their paying lower wages and employing workers on intermittent basis being not required to observe statutes like the Minimum Wages Act. Moreover, given the present pattern of increasing demand for coarse and uneven fabrics in the country, there was no special incentive to produce raw silk of high degree of evenness or cleanness in larger quantity.

3.4.3.3. It was explained by the Government representatives that despite the known defects of the working of filatures, the filatures played an important role in the entire Sericulture Industry. Being the organised largest buyers of cocoons, their buying operations had a stabilizing influence on the prices of cocoons. In their absence the primary rearer would not be able to dispose of his material and get even his minimum return. Secondly, even today the quality of raw silk produced by filatures was far superior to charkha silk and generally had some marginal superiority over silk produced on cottage basins also. The production on high grade raw silk was possible only by adopting the filature system of reeling. It was urged that to promote exports of silk fabrics, quality raw silk was necessary and it was desirable to keep imports of raw silk to the barest minimum, the filature sector of the industry deserved all assistance to enable it to overcome the present handicaps.

3.4.3.4. We have very carefully considered this issue. *We generally agree with the view that filature sector of the*

Sericulture Industry, which alone has the potential to produce raw silk of international quality, to meet the increasing demand for exports and to reduce the country's dependence on imports of quality silk, deserves careful nursing. We have been told that the various problems relating to the filature industry are receiving the attention of the Central Silk Board. However, *since the major effect of the regulation of imports and tariff protection to the Sericulture Industry is to restrict the competition which the indigenous filature silk has to face from imported silk, we feel that the problems relating to the working of the filatures require urgent attention with a view to taking remedial action for reducing the cost of production and improving the quality of the filature silk.* We understand that the Central Silk Board had constituted in July 1967, a committee called 'The Filature Committee' to examine the working of the Government Silk Filatures established in Mysore (now Karnataka) and Jammu and Kashmir. The Committee submitted two Reports, one in 1968 and another in 1969. These Reports examined the various issues at length and made a series of recommendations for improving the working of the filatures. We were told that the improvement in the working of the filatures so far has been rather slow mainly for two reasons. The improvement of the marketing organization in respect of cocoons required suitable legislation. The extension of the law framed by the State of Mysore (now Karnataka) to the entire state, which is the major Sericulture State, was delayed due to legal difficulties. The improvement in the quality of silk presupposes supply of quality cocoons. The development of good hybrid cocoons required time consuming research and the findings in this respect have only recently acquired possibility of large-scale application in the field. *It is hoped that the Central Silk Board will work out a well co-ordinated plan of action for making filatures work on efficient commercial lines and ensure its effective execution by the concerned State Authorities.*

3.4.4. *Non-mulberry Raw Silk.*—Tasar silk is produced mainly in Bihar, Orissa, Madhya Pradesh and West Bengal. Bihar accounted for 66 per cent of production in 1973. Eri

Silk is mainly produced in Assam, Bihar and West Bengal. Assam account for bulk of production being 83 per cent in 1973. Assam is also the only producer of Muga silk. The State-wise production of Non-mulberry silk in 1972 and 1973 along with the production in 1968 is given below:

TABLE 3.5

Production of Non-mulberry Raw Silk

(In lakh kgs.)

	1968	1972	1973
Tasar			
Bihar	1.27	1.27	2.12
Orissa	0.21	0.16	0.12
West Bengal	0.07	0.06	0.05 (estimated)
Assam	Nil	0.01	0.01
Other States	1.35	1.31	1.56
	2.90	2.81	3.86
Eri			
Assam	2.03	1.45	1.39
Other States	0.09	0.01	0.01
	2.12	1.46	1.40
Muga			
Assam	0.70	0.65	0.73
Total production of Non-mulberry Raw Silk	5.72	4.92	5.99

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During the period 1968 to 1973 production of Tasar raw silk increased by 33 per cent. While production of Muga silk increased only marginally, there was a decline in the production of Eri silk by 34 per cent.

3.4.5. *Renditta.*—Renditta is the number of kgs of cocoons used to produce one kg of raw silk. A lower renditta would, therefore, indicate better quality of cocoons and greater efficiency in reeling. The information received regarding average renditta obtained in the various States during 1972 and 1973 along with the position that obtained in 1968 is tabulated below:—

TABLE 3.6

Renditta obtained in various States

	1968	1972	1973
Filature			
Karnataka	20.0	18.0	16.4
Jammu	11.0	12.7	9.7
Kashmir		12.2	12.7
Cottage Basin			
Tamil Nadu	N.A.	18.1	17.1
Charkha			
Tamil Nadu	N.A.	13.1	13.1
Overall			
Karnataka	20.0	16.1	16.0
Uttar Pradesh	N.A.	15.2	15.0
West Bengal	18.4	14.2	14.7
Assam	N.A.	15.7	14.4
Tamil Nadu	N.A.	15.5	15.1

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Renditta in respect of certain individual filature units in Karnataka was as follows:—

	1968	1972	1973
Kanakapura	16	15.4	14.1
Kollegal	19	18.8	16.8
Mysore	20	19.0	18.3
Mellur	14	12.9	12.6

There appears to have been general improvement with regard to the renditta obtained in various States. In paragraph 4.6.5 of our Review Report of 1973, we had drawn attention to deterioration in renditta in Jammu and Kashmir where only filatures exist. The renditta obtained was given as 16.95 in 1969, 23.11 in 1970 and 21.35 in 1971 as against 11.00 in 1968 and, therefore, we recommended that immediate steps be taken to arrest the continued deterioration in the rate of cocoons used per kg. of raw silk in that State. It is gratifying to note that the lost ground has been regained, the renditta obtained in Jammu Region and Kashmir Region in 1972 being 12.7 and 12.2 and in 1973, 9.7 and 12.7 respectively. This is because of appreciable improvement in the quality of mulberry leaf and also in the quality of silk worm seed distributed for industrial rearings.

3.5. **Silk Waste.**—The production of silk waste during the years 1972 and 1973 was as under:—

(In lakh kgs.)

	1972	1973
Mulberry silk waste	8.24	9.76
Non-mulberry silk waste	2.04	2.90
TOTAL .	10.28	12.66

Exports of silk waste were as follows:—

	Quantity (Lakh kgs.)	Value (Lakh Rs.)
1971-72	5.67	43.67
1972-73	10.78	84.41
1973-74	10.58	180.00

Exports of silk waste of South Indian Origin are regulated under a linking ratio giving the silk waste supplier three times the quantity supplied to the local spun silk mills, as entitlement for exports. Pre-shipment inspection of silk waste meant for exports is carried out by the Central Silk Board at the ports.

3.6. **Spun Yarn (Yarn spun from silk waste):**

3.6.1. There are two spun silk mills in production. A third spun silk mill, Bihar Spun Silk Mills, Bhagalpur has been established with 3000 spindles and it went into trial production in March 1974. The production of spun silk yarn and noil yarn by the two mills during the last three years was as follows:—

	Government Spun Silk Mills, Chennapatna, (Karnataka)	Assam Spun Silk Mills, Jagi Road, (Assam)	Total
(a) *Installed Capacity* (Spindles)			
Spun Silk Yarn	7500	3000	10500
Noil Yarn	420	420	840
(b) *Production Capacity* (Kgs.)			
Spun Silk Yarn	Not furnished	34,000	..
Noil Yarn	Not furnished	22,000	..

	Government Spun Silk Mills, Chennapatna, (Karnataka)	Assam Spun Silk Mills, Jagi Road, (Assam)	Total
(c) *Production* (Kgs.)			
1971-72			
Spun Silk Yarn	41,747	22,587	64,334
Noil Yarn	51,415	24,185	75,600
1972-73			
Spun Silk Yarn	41,714	24,390	66,104
Noil Yarn	51,415	25,906	77,321
1973-74 (Estimated)			
Spun Silk Yarn	36,000	24,000	60,000
Noil Yarn	46,000	25,000	71,000

Compared to the production of 61,055 kgs. of Spun Yarn and 71,639 kgs. of Noil Yarn in 1968, there seems to be little improvement in the years 1971-72 and 1972-73 and practically no improvement in 1973-74. In other words, *the two Mills have not been able to utilise more of the silk waste produced in the country and thereby improve their capacity utilisation.*

3.6.2. In Paragraph 6.9 of our Review Report (1973) we recommended that it was not necessary or even desirable to allow import of Spun Silk Yarn or to reduce the import duty on such yarn. We are informed that the import of spun silk yarn has been restricted only to coarse noil yarn against exports as a measure to stimulate exports of heavy fabrics since the demand for such fabrics has been on the increase all over the world. Further, though exporters of silk fabrics are permitted to import nep noil yarns in lieu of raw silk against their replenishment licences, the facility has not so far been availed of. The Central Silk Board has stated that it has been urging the Ministry of Commerce to ban the imports of even noil yarns.

3.6.3. During 1972-73 a quantity of 51,950 kgs of Spun Yarn valued at Rs. 55 lakhs was exported in 1972-73 and the export of 21,600 kgs. has been tentatively permitted for the year 1974-75. This is to help the mills to clear their accumulated stocks after ensuring that the mills make adequate supplies to indigenous units engaged in production of exportable fabrics.

3.6.4. The Government Spun Silk Mills, Chennapatna (Karnataka) has represented to us that the main difficulty experienced by it is non-availability of high grade silk waste. It has alleged that there is a tendency on the part of exporters of silk waste to export high grade silk waste and offer substandard varieties of silk waste to the mills. According to it 80% of its requirement of silk waste should be of high grade in order to produce quality yarn. The mills has also represented that every effort is being made to maintain a steady export market for indigenous yarn and in course of time it might be possible for the spun-silk industry to consume the entire out put of silk waste and export only the finished yarn. It has further advocated complete ban on the import of spun silk yarn.

3.6.5. It has been represented to us that normally there is no foreign demand for indigenous spun silk yarn. The Indian Mills have not yet acquired the art of blending and processing of different types of silk waste and, therefore, the quality of indigenous spun silk yarn marketed by Indian Mills is not upto the mark. As such, the fabrics made out of such yarn cannot have the same finish as those made from the Italian or Japanese Spun Silk-yarn. It was stated that the spun silk yarn that was imported by Japan in 1972-73 was purely on price considerations as the Indian Mills could offer yarn at a much lower price than the ruling international prices. This had become possible, it was explained, because the suppliers of silk waste were required by the Government to supply the same to the Mill at Rs. 8 per kg. as against the market price of Rs. 30/- per kg. *We hope that the Central Silk Board will take note of the complaints that the Spun Silk Mills are not getting sufficient quantity of high grade silk waste and that the quality of the yarn marketed by them is* *not of international quality and suggest suitable remedial steps to the State Governments concerned.*

3.7. **Silk Throwing & Weaving Units.**—The Central Silk Board has furnished the following data regarding silk throwing and weaving sectors of the Sericulture Industry for the period 1973-74.

1. Silk Throwing units (Spindles)	1,21,000
2. *Silk Weaving Units*	
(i) Handloom (Nos.)	1,25,000
(ii) Powerloom (Nos.)	3,885
3. *Production (in million sq. meters)*	
(i) Mulberry	36.0
(ii) Non-mulberry	8.1
(iii) Spun Silk	1.1
TOTAL	45.2

3.8. **Schemes for development:**

3.8.1. *Steps for self sufficiency:*

3.8.1.1. The Central Silk Board has informed us that during the span of the last twenty-five years, the institutional set up necessary for looking after the various aspects such as Research, Planning etc. of the sericulture industry has been built up. The number of institutions concerned with different aspects of the industry all over the country has increased from 358 in 1949-50 to 2408 in 1972-73 and these institutions form the necessary infrastructure for a significant growth of the industry during the Fifth Plan period. The various promotional steps contemplated to attain self-sufficiency before the end of the Fifth Plan period and also to enter the international market are stated to be (a) provision of irrigation facilities under crash programmes, (b) supply of fertilizers by approaching the Ministry of Agriculture for special allotment of quota, (c) intensified mulberry cultivation in the established areas and extension of cultivation to potential areas (d) direct involvement of Central and State Governments in the production of cocoons through functional Co-operative Societies or business organisation or certified Khadi Institutions.

3.8.1.2. The target for the Fifth Plan period for expansion of mulberry cultivation is for 10,090 hectares spread over in eight States. The details are as follows:—

	hectares
Assam	500
Andhra Pradesh	1700
Madhya Pradesh	400
Tamil Nadu	6000
Uttar Pradesh	100
West Bengal	1250
Maharashtra	100
Meghalaya	40
TOTAL	10,090

As regards Karnataka, as mentioned in Paragraph 3.2.1.2., no target has been fixed in regard to the area to be brought under mulberry cultivation. However, there is a proposal to convert an area of 17,500 hectares of rainfed mulberry gardens into irrigated mulberry gardens.

3.8.1.3. The Central Silk Board has stated in a Pamphlet that the Blue Print for the Fifth Five-Year Plan has been documented and stage is set for its implementation from 1st of April, 1974. Planners have identified sericulture as a vital labour-intensive industry with immense potential for creation of employment for the rural populace. The projections of the Fifth Plan Period are given below:—

Production	Output (in metric tons)
Variety of silk	
Mulberry silk	3,500
Tasar silk	650
Eri silk	375
Muga silk	120
TOTAL	4,645

(Rs. in crore)

Outlays	
(1) Central Projects and Centrally sponsored projects	8.00
(2) States' Schemes	27.00
TOTAL	35.00

The target for the production of quality mulberry raw silk fixed for the Fifth Plan period is 8 lakh kgs.

3.8.2. *Price Stabilization schemes.*—Under the auspices of the Central Silk Board a Raw Material Bank for Tasar reeling cocoons and pierced cocoons was set up in August 1972. It is claimed that the successful operation of the Bank brought down the market prices of the Tasar Silk in 1973. In 1973, when the prices of sericulture commodities, particularly of mulberry raw silk also registered a steep rise, the Central Silk Board set up a Price Stabilization Committee to suggest measures to stabilise prices at economical levels. The Committee recommended ceiling and floor prices for indigenous raw silk with a view to ensuring a fair economic return to the primary producers and supply of raw silk to the handloom weavers and fabrics exporters at fair and steady prices. The Committee also suggested the setting up of a Central Price Stabilisation Authority and also a Silk Corporation to deal with the procurement and distribution of both indigenous filature silk and imported raw silk. Persuant to the above suggestions the Central Silk Board has formulated a proposal for the establishment of a Silk Corporation of India. This proposal is stated to be under the consideration of the Government of India. The objectives of the Corporation would be (a) maintenance of buffer stocks of imported and indigenous raw silk for releasing to consumers at times when the market prices tend to go above the ceiling prices, and (b) purchasing of raw silk from the producers directly when the prices tend to fall below the floor prices fixed by the Central Silk Board. The stocks of the imported raw silk are to be released to meet the requirements of exporters against the replenishment quota for raw silk earned by them and also to the actual users requiring essentially high grade raw silk. It is considered by the Central Silk Board that the setting up of this Silk Corporation would give a great impetus for development of the industry at the base level. It is generally recognised that the schemes to even out fluctuations in the prices of agricultural commodities and their processed products, if successful, are in the interest of both the primary producers and consumers. When such schemes relate to the processed product like raw silk, it is necessary to ensure that the benefits of stabilisation in respect of the processed product also percolate to primary producers of the raw material like cocoons. *We hope that some effective action institutional and/or otherwise, will be taken by the Government in consultation with the Central Silk Board to stabilise the prices of raw silk as a long term measure in such a way as to ensure a fair price to the silk worm rearer and a steady supply of raw silk to consumers at reasonable prices.*

3.8.3. *Production of bivoltine Silk worm races:*

3.8.3.1. The State of Karnataka had initiated action in 1972-73 for large scale production of bivoltine silk worm seed. Encouraging results were obtained bringing down the renditta to as low as 8 to 6. During 1973-74, the efforts were continued and 20 lakh DFLs were produced as against 2.2 lakhs in the previous year. The estimated yield per 100 DFLs was also high. 20,000 cocoons during 1973-74 as against 15,000 in the previous year. The silk produced from the cocoons was observed to come up to international standard. The Central Silk Board has stated that the above efforts of Karnataka State were very much appreciated at the Seminar held at Bangalore in April 1974, in connection with the Silver Jubilee celebrations of the Board. Rearers welcomed the change over to bivoltine production and urged that immediate steps be taken to set up adequate seed centres. It has also been stated that many private entrepreneurs came forward to popularise bivoltine silk production and even organise production of such silk exclusively for export purposes. A detailed scheme proposed by a private firm in the silk trade in Bangalore for the development of Sericulture in

Karnataka on Japanse lines and with suggestions for maximising production has been approved by the Government of Karnataka and the Central Silk Board and is now under the consideration of the Government of India. The Board expects that the enthusiasm created in this regard would enable the industry to make considerable headway during the Fifth Plan period in the production of high grade raw silk.

3.8.4. Besides its welfare oriented structure, sericulture industry also plays an important role in our export economy. An ambitious target of Rs. 87.50 crores has been set for the exports of silk, silk yarn and silk waste during the Fifth Five-Year Plan. Year-wise break-up of this target is as follows:

Export Target for the Fifth Plan

(Crore Rs.)

Year	Silk goods (Manufactures)	Silkwaste	Silk yarn	Total
1974-75	13·00	0·50	0·50	14·00
1975-76	14·50	0·50	0·50	15·50
1976-77	16·00	0·50	1·00	17·50
1977-78	17·50	1·00	1·00	19·50
1978-79	19·00	1·00	1·00	21·00
TOTAL .	80·00	3·50	4·00	87·50

3.8.5. In paragraph 4.7.2. of our Review Report (1973), we recommended that the Government might examine the financial needs of the Central Silk Board and provide such further assistance to it as may be found to be really necessary so that paucity of funds do not stand in the way of implementing the extremely satisfactory results obtained in the field of research on a field scale. We are informed that the question of securing adequate finances for the Central

Silk Board to further the interests of the Sericulture industry was gone into in great detail by a special Committee of the Board. The Committee recommended that (a) Section 10 of the Central Silk Board Act, 1948 should be amended enabling the Board to levy cess/fees etc. to raise funds to finance the developmental activities and (b) Central Silk Board Rules, 1955 should be suitably amended investing the main functionaries of the Board with adequate powers. The above recommendations were accepted by the General Body of the Central Silk Boards in June 1971 and submitted to the Ministry of Industrial Development. In August 1972 the Ministry made certain amendments to the Central Silk Board Rules, 1955 vesting more financial powers with the Chairman and Secretary of the Board and empowering the Board to borrow funds from the Nationalised Banks. The amendment suggested for Section 10 of the Central Silk Board Act, 1948 regarding levy of cess/fees is stated to be still under the consideration of the Government.

4. Consumption and demand—Raw Silk.

4.1. The availability of raw silk during the latest three years 1971-72 to 1973-74 is shown in the following table:—

TABLE 4.1

Availability of Raw Silk

(In Lakh kgs.)

Year	Indigenous production	Imports	Exports	Availability
(1)	(2)	(3)	(4)	(5)
1971-72 . . .	26·00	0·18	Nil	26·18
1972-73 . . .	27·85	0·38	Nil	28·23
1973-74 (Estimated) .	30·75	0·06	Nil	30·81

The imports of raw silk during 1973-74 were drastically curtailed due to continued increase in the international prices. The indigenous production of raw silk, however, registered a small increase during the period and as a result, the total availability of raw silk in the country actually showed some marginal improvement.

4.2. The Central Silk Board has referred to a recent sample survey conducted by the marketing division of the Textiles Committee in 1973 about the pattern of consumption of Textile fabrics. The Sample Survey showed that the pure silk material figured prominently, indicating an off-take of 28-40 per cent in cities, 12 to 20 per cent in big towns and 6 to 12 per cent in villages. In the opinion of the Textiles Committee, endorsed by the Central Silk Board also, the rate of increase in consumption of pure silk was 5 per cent per annum in India and the increase in consumption in future may not be less than 5 per cent per annum.

4.3. The scarcity of man-made fibres consequent upon the oil crisis and their high prices have reportedly caused a manifest tendency for high off-take of pure silk in preference to other synthetic and man-made fabrics. The Central Silk Board optimistically expects this tendency to grow in the future with the growing purchasing power of the people. The Board has at the same time, pointed out that it would be hazardous to predict the trend of demand with any certainty since the determinants for the growth of demand are (a) price and (b) quantum of supply. The traditional handloom weaving sector is flexible, switching over to any fibre that is fast moving in the market. Any fibre, if it is within the reasonable reach of the common man, suddenly picks up demand and hence it is difficult to make any reliable estimate of the demand for it. The Central Silk Board has not, therefore, given any precise estimate of demand for raw silk in the near future. It has, however, made some broad estimates of the expected size of the gap between the demand for, and supply of raw silk during the 1974-79 period to enable it to frame its policies regarding imports and indigenous production. These estimates of the gap have been indicated in para 7.1.2.

of this Report. *We are inclined to agree with the view of the Central Silk Board that it is not possible to give any precise estimate of future demand for raw silk and have not attempted any estimate of our own of the same.*

4.4. The Central Silk Board has estimated the production of silk fabrics during 1973-74 at 452 lakh square metres. The exports for the year 1973 was 56.31 lakh square metres (*i.e.* 12.8 per cent of the production). It may, therefore, be broadly assumed, without making adjustments for opening and closing stocks with manufacturers and the trade, that the consumption of silk fabrics in the country might be of the order of 400 lakh square metres during 1973-74. The Central Silk Board expects the production of silk fabrics in the country to touch 700 lakh square metres by 1979-80. Earmarking 20 per cent for exports, the balanced 560 lakh square metres might be available for the domestic market.

5.1. **Standards:**

5. Standards, Quality and Testing. 5.1.1. The Standards so far published by the Indian Standards Institution (ISI) are on grading and testing of raw silk and on silk fabrics and they are listed below:—

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(A) *Grading and Testing of Raw Silk*

IS : 2938—1964	. Method of grading raw silk.
IS : 2939—1964	. Methods for visual and tectual examination of raw silk.
IS : 2940—1964	. Method for determination of conditioned weight of raw silk.
IS : 2941—1964	. Methods for conducting winding test for raw silk.
IS : 2942—1964	. Methods for determination of size (count) deviation and maximum deviation of raw silk.
IS : 2943—1964	. Method for determination of conditioned size (count) of raw silk.
IS : 2944—1964	. Method for determination of evenness and low evenness of raw silk.

IS : 2945—1964	Methods for determination of cleanness of raw silk.
IS : 2946—1964	Methods for determination of neatness and low neatness of raw silk.
IS : 2947—1964	Method for determination of the tenacity and elongation of raw silk by serigraph test.
IS : 2948—1964	Method for determination of cohesion of raw silk.

(B) *Silk Fabrics*

IS : 1583—1960	Handloom silk dhoties, loomstate
IS : 1584—1960	Handloom silk shirting, loomstate
IS : 1686—1960	Handloom silk bush shirt cloth, loomstate
IS : 1687—1960	Handloom silk kora (loomstate) cloth
IS : 2207—1962	Handloom printed silk saris
IS : 3356—1965	Jhoot silk coating
IS : 3357—1965	Matka silk fabric
IS : 3358—1965	Dupion silk fabric
IS : 3359—1965	Silk coating.

5.1.2. In paragraph 8.4.2 of our Review Report (1973) we suggested that in view of the difficulties of the industry, the ISI might examine the question of suitably modifying the standard specifications. Both the Central Silk Board and ISI have stated that action on the review of Indian Standards on silk grading and testing so as to make them more pragmatic for adoption by the Indian Silk Industry has been initiated.

5.2. **Quality :**

5.2.1. The consensus of the opinions expressed by the interests concerned is that the quality of indigenous silk is still lower than that of foreign silk and that very little improvement in the quality is noticeable. The Central Silk Board has, however, stated that of the three distinct systems of production of raw silk *viz.*, Charkha cottage basin and filature, considerable improvement was visible in respect of production from cottage basin and filature in the years 1972 and 1973. Whereas the raw silk produced by the Government filatures is regularly tested, the silk coming from the small reeling establishments of cottage basin and charkha which forms the bulk of the production of raw silk and is consumed by the handloom weavers, does not undergo any testing regularly, it is only rarely that the production from the charkha and cottage basins is tested by the consumers to ascertain the winding property and size. There is no incentive to produce raw silk of high degree of evenness or cleanness because the weaving industry, who are the consumers, does not bother about a high degree of sophistication in quality, for the reason that they are concentrating on producing items like sarees and other traditional items only. Another reason is that demand for coarse and uneven fabrics is increasing. In the context of price hike for raw silk all over the world and attempts to utilise cotton and mill spun yarn and non-mulberry reeled silk as warp material, reeling establishments generally have laid emphasis on the production of coarse yarns which enjoy a good market. High quality yarn is required only by a limited section of the weaving industry. The small reeling establishments are not keen to produce high grade raw silk generally in demand in the international market. It will, therefore, be obvious that the present production is geared to meet the minimum needs of the consumers. The greater demand for dress materials and furnishing fabrics was responsible for the production from charkhas keeping pace with the growth in the production of mulberry reeling cocoons. The Central Silk Board is seeking to gradually replace the multivoltine race with the bivoltine race of silk worm. An introduction has already been made in the traditionally multivoltine areas of West Bengal and Karnataka. The Board has envisaged that the production of bivoltine would reach 800 tonnes of raw silk by the end of the Fifth Plan period. It expects that it will be possible by that time to produce gradable silk.

5.2.2. One of the leading representative of the trade has informed us and stressed during the public inquiry that the quality of the indigenous raw silk has showed very little improvement. Moreover, 60% of the total production of raw silk still continues to be reeled on outmoded charkhas. It is obvious that the charkhas cannot have any standard. This silk is used by handloom weavers who are least bothered about the standards. As far as the cottage basins are concerned this representative is of the opinion that a few of them from Siddalghata in Karnataka have taken care to improve the quality, while rest of the units continue to reel and market in the traditional way. The main drawbacks in the indigenous raw silk mentioned by him are serious deficiency in evenness, variation in deniers and very bad winding quality. Further, it is alleged that in spite of repeated stress on the quality and for testing of raw silk on regular basis, hardly any steps have been taken to improve matters. This state of affairs, in his opinion, is due to the fact that the raw silk in the country is in short supply and whatever is available is quickly taken up by the buyers. The quality of Karnataka Filatures according to him, continues to be as bad, if not worse, as ever. While the production of filature silk for the last five years remained more or less at the same level, there was a good progress quantitywise in the cottage basin and charkha raw silk. In certain cases the cottage basin silk even commanded premium over the price and quality of filature raw silk. The Trade Representative who is also a reputed dealer, further mentioned that in 1973, when the international price of raw silk reached a record level, the Government filatures in Karnataka thought that they could export a sizeable quantity in the international market and called for tenders for export of filature silk. Accordingly, the dealer tendered Rs. 300/- per kg. as against the market price of Rs. 280/- per kg. with a view to attracting better quality silk. However, even the minimum standard prescribed for export of raw silk by the Central Silk Board could not be adhered to and no export was possible. The dealer has further informed us that though the quality of Kashmir Silk is comparatively better, the acceptability of the same in the international market is doubtful in the absence of quality tests consistently carried out from batch to batch. Moreover, the quantity of silk produced in Kashmir is so little and the prices so high that there is little chance of Kashmir Raw Silk moving into the international market. At the Public Inquiry, it was generally conceded that, some coordinated scheme which would take into account the disadvantages under which the filatures are working at present, is necessary to improve the working of the Filature sector. The different aspects of this problem have already been indicated in para 3.4.3. of this Report.

5.3. **Testing:**

5.3.1. In paragraph 8.2.1. of our Review Report (1973), we observed that there was little of silk testing and conditioning since the bulk of the silk produced in the country was of charkha variety. We, therefore, recommended that there should be silk testing and conditioning and also a system of release of raw silk at regulated intervals and at regulated prices based on quality. The Central Silk Board has pointed out that it has not been found possible at present to introduce a system for compulsory testing and grading of raw silk before marketing in accordance with the current ISI standards for testing and grading due to two difficulties. One is the prevalence of diverse systems of production and the second is the greater demand for uneven and coarse yarns for the manufacture of a wide range of dress materials and furnishings. The Board has, however, stipulated a system of testing and grading under the Raw Silk Price Stabilisation Scheme with standards modified to suit the existing conditions. As indicated in para 5.1.2., the question of adopting pragmatic standards for the purpose has already been initiated.

5.3.2. The representative of the Karnataka Government admitted at the Public Inquiry that the raw silk produced in the State is not of international standard as multivoltine cocoons cannot give such silk. Though facilities were available for testing of raw silk produced in the State, only voluntary testing is done at present and at best 35 per cent of production of raw silk (contribution of Domestic Basins and Filatures) could alone be termed as silk amenable to testing. Introduction of compulsory testing for filature raw silk is however, under consideration. The representative of the Government of Jammu & Kashmir stated that raw silk produced in the State was tested and found to be of international standard; but the representative of the Central Silk Board explained that only some of the tests prescribed could be conducted at the Test House in Srinagar and it might have shown international standard in those aspects only since all the aspects of the prescribed test could not have been conducted. The representative of the trade expressed the view that the machinery at Srinagar Testing House was outmoded and the Testing House at Chennapatna is yet to be perfected.

5.3.3. The need for proper testing of filature raw silk so as to ensure the grade of quality of the silk particularly for export was stressed by the representative of the trade. It was generally conceded at the public inquiry that steps taken in that direction would be in the long term interests of the filatures themselves. As this is a legitimate demand of the trade, *it is necessary that the Silk Conditioning and Testing Houses at Bangalore and Srinagar are modernised and properly equipped for regular testing of filature raw silk so that the filature units are in a position to attach certificates indicating the results of the tests to their consignments of raw silk released for sale. The Central Silk Board should examine this issue with a view to taking suitable action in the matter.*

6. Research

6.1. The following institutions under the administrative control of the Central Silk Board are engaged in continuous research into the various spheres of the Sericulture industry such as mulberry cultivation, seed production; rearing of silk worms. reeling of raw silk etc.:—

Research Institutions.

(1) Central Sericultural Research & Training Institute, Mysore (Karnataka)

(2) Central Sericultural Research Station, Berhampore (West Bengal) and
Regional Sericultural Research Station, Kalimpong (West Bengal)

(3) Central Tasar Research Station, Ranchi (Bihar).

Regional Tasar Research Stations

(a) Batote (Jammu & Kashmir)
(b) Bhimtal (Uttar Pradesh)
(c) Imphal (Manipur)

(4) Central Muga & Eri Research Station, Titabar (Assam).

Basic Seed Stations

(1) Central Silkworm Seed Station Pampore (Jammu & Kashmir)

(2) Silkworm Seed Station, Coonoor (Tamil Nadu)

(3) Central Tasar Silkworm Seed Station, Lakha (Madhya Pradesh).

6.2. Some of the recent research findings, which are expected to have far reaching beneficial effects on the future of Sericulture Industry in the country are outlined below.

6.2.1. The Central Sericultural Research and Training Institute, Mysore, has been conducting experiments on the agronomical practices in relation to ecological conditions of Karnataka State for the benefit of mulberry cultivators and rearers. Application of the practices developed by the Institute is stated to have resulted in the production of nutritive leaves and good harvest of crop. As a consequence the cost of production of leaves in irrigated areas has gone down from the present 29 paise per kg. to 20 paise per kg. Studies on mulching and ridging of mulberry plantations in the rain-fed area with proper doses of nitrogenous fertilisers have demonstrated that the yields could be of the order of 8000 kgs. of leaves per hectare as compared to the present yield of 3500 kgs. per hectare. The cost of production of leaves would also be reduced from the present 50 paise per kg. to 33 paise per kg. Studies on silk worm rearing have enabled the Institute to evolve less laborious and improved techniques of silk worm rearing potential for the vigorous growth of the larvae. Rearing of the high yielding superior strength of silk worm has been made under the new technique with a resultant higher yield of cocoons of 35 to 40 kgs. per 100 disease free layings and reduction in the renditta to 10-12. The improved technique of silk worm rearing is also adopted for rearing bivoltine silk worms. This is claimed to give about 75% yield of raw silk of the total silk content in the cocoon with the present reeling technique in the country as against hardly about 50% yield of raw silk from the multivoltine cocoons commonly available in the Mysore markets at present. The bivoltine silk is also claimed to be of international A grade standard. It has been *demonstrated by the Institute that the Government Farms as well as sericulturists can successfully rear bivoltine silk worms throughout the year.* So far more than 8 to 10 lakh disease free layings of bivoltine silkworms have been reared by the villagers and the Government of Karnataka has reportedly taken up the introduction of the bivoltine silk worm rearing in a phased programme. The Institute has started two Extension Centres, one at Krishnapuradoddi near Channapatna and the other at Lalgondahalli in Kolar. It has been stated that 52,000 disease free layings of nuclear stock of bivoltine silk worm races have been produced at the Extension Centres as a part of programme of bivoltine seed supply for 1973-74. Utilising these, the Government of Karnataka has prepared over five lakh layings during the year 1973-74. It has been stated that *the rearing of bivoltine silk worm has opened up a new chapter in the era of production of international quality silk in the country.* It is claimed that more than two million kgs. of such silk can be produced in the northern zone of Karnataka alone. The actual work of extension is entrusted to the State Department of Sericulture. Efforts are made to carry the achievements of Research to the field as expeditiously as possible. There is, however, some inevitable delay in this respect as the supply of newly developed material like hybrid seeds has to be assured in sufficient quantity, the extension workers have to get themselves acquainted with the new techniques, and the mulberry cultivators and rearers have to be convinced of the likely benefits of the adoption of new techniques.

6.2.2. The Central Sericultural Research Station, Berhampore (West Bengal) has one sub-station at Kalimpong

(Darjeeling Dt.) and two Extension-*cum*-demonstrative centres, one at Jalalpur (Malda Dt.), and other at Panchgram (Murshidabad Dt.). Research work carried out at the Central Station in its various sections related to Mulberry, Silk worm breeding and genetics, silk worm Physiology, Entomology, Pathology, Chemistry and Agronomy. At the Kalimpong sub-station work is carried out on the stock maintenance of bivoltine races and fixation of some superior silk worm breeds selected for field trials. The recommendations of the Research Station based on the research findings were popularised through the extension centres. A recommendation regarding the rearing of the multivoltine F1 crosses between Nistari and four superior evolved races (D14 b, D 3c, MAD IV and MBDV) for rearing during the hotter months is reported to have given good results with 15 to 30 per cent higher yield over the local race. For autumn and spring rearing. F1 bivoltine combinations were recommended and the increase in silk yield of 100 per cent from these layings has been recorded. Other recommendations of the Research Station have been in the matter of planting of high yielding mulberry cuttings, irrigation schedule, manurial dose and a schedule for preservation of eggs for 24—36 hours after egg laying.

6.2.3. The Central Tasar Research Station, Ranchi has developed a new field in Tasar silk, namely, Tasar Culture on Oak. A special project for Manipur State was launched in August, 1973 on about 80,000 acres of oak plantation in the State. The aim is to produce 5 lakh kgs. of Tasar raw silk giving full time employment to about 9000 persons and part time employment to about a lakh persons. *The existence of nearly 20 lakh acres of oak plantation in the sub-Himalayan region is expected to give vast potential for production of Tasar raw silk.* For this purpose, three Regional Tasar Research stations at Imphal (Manipur), Bhimtal (U.P.) and Batole (J&K) were set up in 1970. Plans are afoot for the production of 40 lakh kgs. of Tasar raw silk per annum giving full time employment to about 73,000 persons and part time employment to about 8 lakh persons. *As there is practically no cost for the maintenance of the plantation, Tasar silk on oak is expected to be relatively cheaper capable* *of competing China in the world market.* The Research Institute at Ranchi has also been actively engaged in evolution of new races and improved rearing and reeling techniques. The Tasar silk worm A. Mylitta D. normally possessed green larval body colour. During some intensive survey, the Research Station has been able to collect some materials with yellow and blue larval body colours. While reproducing the blue mutant, a new segregant of almost body colour was obtained. Through planned breeding, mutant strains have been stabilised paving the way for better production. By the new rearing technique evolved by the Station it is claimed that the extent of mortality has been reduced from 80 to 85 per cent to 40 to 50 per cent by conducting the rearings under polythene cover up to a certain stage followed by outside rearing as against the complete out-door rearing in the conventional method. Demestication of Tasar silk worm is also being introduced. As regards reeling against the conventional pedal driven reeling machines where uniform twist and denier of the fibre is not ensured, the Station has fabricated an improved type of reeling machine of 8 spindles which, besides being power driven, produces fibre of uniform twist and denier. In order to popularise and disseminate the above improved techniques of tasar culture among rearers, three extension-*cum*-demonstration centres have been set up in the principal tasar producing States.

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6.3. In paragraph 9.2. of our Review Report (1973), we laid emphasis on the fact that the future of the Indian Sericulture Industry lies not only on the extent to which research is carried out but also on the extent to which the results of such research are applied in actual practice on as wide a range as possible. The Central Silk Board has expressed the view that the Extension Wings that are being added to the research institutions could act as pilot centres where the personnel of the sericulture departments and the farmers could study on the spot, methods developed by the institutions. The question of providing adequate facilities to the personnel of sericultural departments to get themselves acquainted with the latest improved techniques developed by the Research Centres is engaging the attention of the Central Silk Board and the concerned State Departments. The Board expects that during the next few years (Fifth Plan period) there would be sufficient progress made in respect of dissemination of research information among farmers in the interior places through the net-work of sericultural institutions working under the Departments of the States.

6.4. We were told at the Public Inquiry that the latest research findings relating to bivoltine hybrids, oak-tasar culture, techniques of rearing etc. together constitute a major break-through and are expected to enable the sericulture industry to overcome many of its difficulties which have obstructed its progress so far. *We, therefore, hope that the question of effective co-ordination between the Research Institutions and the State sericulture departments, which alone can ensure rapid dissemination of new techniques, would receive all the attention it deserves from the Central Silk Board and the concerned State departments.*

7.1. **Imports:**

7. Imports and Exports

7.1.1. Imports of raw silk are restricted and canalised through the Central Silk Board for supply to exporters of mulberry silk fabrics against replenishment release orders issued by the licensing authorities. The imports during the last three years were as under:

Year	Quantity (Kgs.)	Value (Lakh Rs.)
1971—72	18092	26·13
1972—73	37965	66·46
1973—74 (upto Feb.—'74)	6437	15·32

The imports made are to meet the demand for superior quality of Raw Silk by the manufacturers of exportable fabrics. Imports of spun silk yarn are also restricted. Only coarse

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noil yarn is allowed to be imported against export entitlements, as a measure to stimulate export of heavy fabrics. the demand for which is stated to be on the increase all over the world. Imports of fine counts of spun silk yarn are not permitted. Although the replenishment against export of mulberry silk goods is also in favour of nep noil yarn *in lieu* of raw silk, this facility, we were informed, has not been availed of by any exporter so far because of very high prices of this fancy yarn.

7.1.2. The Central Silk Board has broadly indicated the likely size of the gap between the demand and supply of raw silk for the period 1974-79 as under:—

	Kgs.
1974	50,000
1975	70,000
1976	1,00,000
1977	125,000
1978	100,000
1979	50,000

The Central Silk Board feels the necessity to import raw silk during the first two or three years either from Korea or Brazil according to present sources of supply or from China through bilateral agreements, if permitted. Such imports are expected to peg the prices of indigenous silk to reasonable levels. In this context the Central Silk Board has stated that it has formulated both short term and long term policies; the short term policy relates directly to the imports of minimum quantity of raw silk and the long term measure to increase the output of indigenous filature raw silk to ensure adequate supplies to weavers at steady prices.

7.2. **Exports :**

7.2.1. Export of raw silks are banned. For exports of spun silk yarn, a ceiling of 21,600 kgs. was fixed for 1973-74 to help clearance of accumulated stocks with the spun silk mills. Exports of silk waste of South Indian Origin are regulated under a linking ratio giving the silk waste supplier three times the quantity supplied to the local mills as entitlements for exports. Silk goods are permitted to be exported without any restrictions. The exports are also actively encouraged by Government through a Replenishment Scheme, first with the aim of making available to the registered exporters, raw materials like raw silk, dyes and chemicals, embellishments etc. required for the production of exportable silk fabrics and secondly to provide a measure of strength by indirect cash assistance to sustain export tempo. The scheme of entitlements at present in vogue is broadly as under:—

Sl. No.	Type of Goods exported	Import replenishment percentage
(i)	Natural silk goods and made-up articles containing 50% or more of milberry silk by weight except silk carpets.	40 per cent, subject to a ceiling of Rs.35/- per sq. metre in respect of sarees and dress materials and Rs. 30 per sq. metre in respect of other items.
(ii)	Readymade garments containing 50% or more mulberry silk by weight.	35 per cent.
(iii)	Natural silk fabrics and made-up articles containing less than 50% mulberry silk by weight and/or containing no mulberry silk yarn.	10 per cent.
(iv)	Ready-made garments of natural silk fabrics containing less than 50% of mulberry silk by weight.	12 per cent.
(v)	Natural silk thread and yarn of tasar or mulberry.	20 per cent.
(vi)	Silk carpets	25 to 40 per cent.

During the licensing year 1973-74, cash assistance of 10 per cent on exports of silk fabrics and garments containing less than 50 per cent mulberry silk by weight and/or containing no mulberry silk was given. Further, an additional incentive of 5 per cent cash assistance was also allowed to exporters of these products, whose performance during that year (1973-74) exceeded 50 per cent over their performance in the preceding year. There is no cash incentive scheme for the current year (1974-75).

7.2.2. The Central Silk Board is authorised to make preshipment inspection of all silk goods to be exported. The Board has stated that in the case of mulberry fabrics, inspection is restricted to purity of the fibre and in the case of Tasar quality inspection to the extent of 20 per cent of the goods tendered for export is carried out.

7.2.3. Actual exports of silk goods and silk waste during the years 1971-72 to 1973-74 were as follows:—

(Quantity in lakh sq. metres)

(Value in lakh Rs.)

Year	Silk Goods Mulberry		Silk Goods Non-Mulberry		Total		Silk Waste	
	Q	V	Q	V	Q	V	Q	V
1971—72 .	38.46	584.80	7.18	130.53	45.64	715.33	5.67	43.67
1972—73 .	41.09	683.12	7.14	147.73	48.23	830.85	10.78	84.41
1973—74 .	52.11	1039.71	8.39	197.68	60.50	1237.39	10.58	180.00

The total exports were of the value of Rs. 7.59 crores in 1971-72, Rs. 9.15 crores in 1972-73 and Rs. 14.31 crores in 1973-74. Compared to the exports of Rs. 4.18 crores in 1968, the exports in 1973-74 were more than three times. This excellent performance on the export front has been claimed by the Central Silk Board to be due, besides the exports incentives, to (a) marked change in the out look of the exporters in providing a range of new types of designs and colours and (b) preshipment inspection standards enforced by the Central Silk Board to maintain the quality of the goods.

8. Selling Prices

8.1. There was an export boom in respect of silk goods in 1969 resulting in steep rise in the prices of raw silk which, in turn, pushed up the prices of cocoons. Similarly, a downward trend in exports in 1971, resulted in a fall in the prices of mulberry silk and cocoons. But, the prices again showed an up-trend in the latter half of 1972 and in 1973 in line with the increase in the international silk market of Yokohama (Japan) where the prices touched unprecedented high levels in 1973. A statement showing the maximum and minimum prices for each of the quarters of 1972 and 1973 for reeling cocoons, Filature silk, Cottage Basin Silk, Charkha Silk and Silkwaste in the principal silk markets (Bangalore, Varanasi, Malda and Bhagalpur) is given in Appendix-VI.

8.2. **Prices of Mulberry reeling cocoons.**—The trend in the prices of Mulberry Silk cocoons at the principal centres in Karnataka State is shown below:—

(Rs. per kg.)

Year	Sidlaghatta		Chamarajanagar		Kollegal		T.Narasipur	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1970 . . .	11.27	13.97	7.17	10.85	8.10	11.32	3.25	14.00
1971 . . .	5.80	11.10	4.85	8.41	5.36	8.03	5.20	7.76
1972 . .	8.50	15.20	7.70	13.50	7.85	11.70	8.00	11.40
1973 . . .	11.16	23.32	10.50	17.70	11.40	17.20	10.22	17.04

The markets witnessed violent fluctuations in prices indicative of the speculative nature of the cocoons and silk markets. The wide disparity between the maximum prices is stated to be due to the following features:—

(a) Variations in the quality of cocoons available in two important seasons, Mungaru (May-June) and Tharakaddi (September-October), and

(b) Poorer quality of cocoons in rainfed areas as compared to that in irrigated areas; Sidlaghatta is irrigated area while the other three areas are rainfed.

8.3. **Prices of mulberry raw silk:**

8.3.1. The prices of raw silk in the principal mulberry State of Karnataka follow, to a certain extent, the pattern of prices in the international silk market as may be seen from the following table:—

TABLE 8.1

Average prices of raw silk

(Rs. per Kg.)

Year	Average price of filature raw silk in Karnataka	Average price of Charkha Raw Silk First Quality in Karnataka	Average F.O.B. price of Japanese raw silk
1970	197·00	147·54	168·04
1971	152·00	107·50	150·29
1972	190·00	166·00	183·59
1973	255·00	220·00	296·40

The prices showed a fall in 1971 but thereafter registered a steady upward trend. We are informed that although there was a marked downward trend in the foreign prices since October, 1973 the prices of Raw Silk in Indian Markets continued to be high. The Indian prices for the week ended 2nd August 1974 were Rs. 330—Rs. 335 per kg. for Karnataka filature silk and Rs. 265.00—290.00 per kg. for Karnataka charkha silk as against the f.o.b. price of Rs. 233.24 per kg. for Japanese Raw Silk for the corresponding period.

8.3.2. As mentioned in para 3.8.2.1. the prices of mulberry raw silk registered a steep rise in 1973, the Central Silk Board constituted a Raw Silk Stabilisation Authority to suggest measures to stabilise prices at economic levels. The above Authority recommended the following ceiling and floor prices for mulberry raw silk.

(Rs. per kg.)

	Floor Price	Ceiling Price
(i) Mysore Government Filature raw silk 20/22 denier,	245·00	280·00 (since revised to Rs. 308/-)
(ii) Cottage basin silk	200·00	230·00
(iii) Charkha raw silk	165·00	190·00

The Central Silk Board has stated that the prices in the silk market have been ruling higher than the ceiling levels recommended by the Authority; the factors responsible for the level of prices being (i) tight supply demand ratio, (ii) highly speculative cocoon market arising out of open auction system, and (iii) absence of sizeable imports at competitive price levels.

8.4. **Prices of non-mulberry cocoons.**—The table below gives the trend in prices of non mulberry cocoons:—

TABLE 8.2

Year	Tasar Daba reeling cocoons	Eri cut cocoons	Muga reeling cocoons
	(Rs. per kahan)	(Rs. per kg.)	(Rs. per thousand
1970	170—178	12—18	25—35
1971	176—186	15—23	38—43
1972	195—205	12—19	40—47
1973	168—179	12—20	30—45

The Central Silk Board has stated that the spurt in prices of Tasar cocoons in Bhagalpur market in 1970 continued in 1971 and 1972. But, it was arrested in 1973 by the successful operation of the Raw Material Bank for Tasar cocoons, set-up in 1973.

8.5. **Prices of Tasar Silk (Twisted).**—The prices in Bhagalpur market ranged from Rs. 135 to 185 per kg. during 1972 and from Rs. 130 to 200 per kg. during 1973.

8.6. **Release price of imported raw silk.**—The F.O.B. price of Korean raw silk imported by the Central Silk Board was Rs. 133.28 per kg. in 1971-72, Rs. 158.64 in 1972-73 and Rs. 260.50 in 1973-74. The average price (including duty) at which the imported raw silk was released against entitlements of exporters of fabrics was Rs. 229 per kg. in 1971-72, Rs. 224 per kg. in 1972-73 and Rs. 378 per kg. in 1973-74. The latest release price was Rs. 432 per kg. in August 1974.

9. c. i. f. Prices

9.1. As mentioned in paragraph 8.3.1 the F.O.B./C.I.F. prices of raw silk in the international markets registered a steady upward trend since the beginning of 1972 and that trend continued till September 1973. Since October 1973, there was a marked downward trend in those prices. The information regarding c.i.f. prices received from the Central Silk Board in respect of Korean and Japanese 20/22 denier raw silk from the beginning of this year is as follows:

(Rs. per kg.)

Month	Korean raw silk 20/22 dr.	Japanese raw silk 2 'A' grade 20/22 dr.
1974		
January	265·80	266·53
February	254·03*	249·26
March	260·13*	251·94
April	N.A.	239·41
May	242·50	241·41
June	236·33	241·46
AVERAGE	251·76	248·33

*Imports nil.

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9.2. The information available in respect of Korean raw silk is incomplete. Hence for the purpose of comparison we have, as in the case of 1969 Inquiry, taken the average c.i.f. price of Japanese 20/22 dr. raw silk for the first six months of 1974 which comes to Rs. 248.33 per kg.

10. Cost of production and fair estimated ex-filature price of Raw Silk.

10.1. Since our Review Report of 1973, the production of filature raw silk in the Karnataka State increased from 1.06 lakh kgs. in 1972 to 1.59 lakh kgs. in 1973. The corresponding increase in production of the Jammu and Kashmir State was from 0.53 lakh kg. to 0.61 lakh kg. The growth in production in other States was practically insignificant. For the same reasons as set out in the Commission's 1969 Report, we decided to take our decision on the issue as to whether protection should continue and, if so, the measure thereof on a cost study of only some filature units. Since Karnataka State is the main producer of filature raw silk, this cost study was confined to some filature units in that State. In the last inquiry in 1969, the Commission considered the cost of production of three Government Silk Filature units in the State viz. Kanakapura. Kollegal and Mysore. For the present inquiry, we decided to increase the number of samples to cover the performance of other units also. Therefore two more units viz. Chamrajanagar and Santhemarahally were added for our cost study. Reckoned on the data for 1972-73, the installed capacity of the basins and the production of these five units represented 69.4% and 74.9% of the total installed basins and the total volume of production of the seven Government silk filatures in the State. The cost questionnaires were issued to all these filatures and the costs of production were worked out on the basis of information furnished by them. For the limited purpose of recommending a measure of protection, the on-the spot examination of the books of the filatures was not undertaken and the figures furnished by these Government units were accepted as correct.

10.2. The salient features of the working of the filatures selected for cost study for the year ending on 31-3-1973 are shown in the table below:

TABLE 10.1

Name of the Units	Kanaka pura	Kollegal	Mysore	Cham-rajanagar	Santhem-arahally
1. Days actually worked during 1972—73—Nos.	296½	298½	284	293	291
2. Installed basins—Nos. . .	200	464	90	166	104
3. Basins actually worked on an average (Single Shift)	124½	229	69	73	83
4. Basin capacity utilised (3/2×100)	63.3	49.4	76.7	62.9	79.3
5. Total production of Raw silk-all types—kgs.	22,527	26,629	9,644	10,667	11,550
6. Production under (5) equated in terms of 20/22 denier—kgs.	18,238	26,918	8,522	8,540	9,670
7. The production against (6) per basin day (gms.) on an average.	494	394	435	399	400
8. Minimum output expected per basin per shift according to Truce Agreement 1973 for 20/22 denier—gms.	460	440	440	440	440
9. Overhall operational efficiency during 1972—73 (7/8 × 100)—%	107.4	89.5	98.2	90.7	90.9
10. Assessed employment of workers per basin day—Nos.	2.7	2.6	2.2	2.8	2.5
11. Average purchase rate of Cocoon durinng the year—Rs./Kg.	11.81	11.39	10.12	10.92	10.65
12. Average renditta during the year —Ratios	14.4:1	17.7:1	19.6:1	18.7:1	19.2:
13. Silk waste percentage on Raw Silk produced —%	38.2	62.3	63.7	61.6	62.9
14. Average Silk content (Silk obtained plus silk waste) per kg. Cocoon—Gms.	96.0	91.7	83.5	86.4	84.8
15. Value paid per 100 gms. of Silk content in the Cocoon—Rs.	12.30	12.42	12.12	12.64	12.56
16. Profit (+) Loss (—) before charging of interest on Government loans, sales commission and before affording credits for investment-income —Rs./lakhs	(+)1.74	(—)14.69	(—)3.13	(—)2.57	(—)3.41
17. Profit (+), Loss (—) after interest commission and credit for investments income	(+)0.09	(—)16.92	(—)4.48	(—)3.61	(—)4.73
18. Sales—Rs./lakhs . . .	52.30	53.29	20.39	21.85	20.94
19. Percentage of (17) on (18)—% .	(+)0.2	(—)31.8	(—)22.0	(—)16.5	(—)22.6

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10.3. The items shown in the table are self-explanatory. However, there are certain disparities in the figures amongst the units *inter-se.* It will therefore be relvant to discuss some of the points. The number of actual working days during the year varies because of the closures of the filatures on account of the number of unpaid holidays agreed to between the labour unions and management as also for paid holidays depending upon local conditions. The basin capacity utilised varies from 49.4% in the case of Kollegal to 79.8% in the case of Santhemarahally. Various reasons were put forth to explain the under utilisation of basin capacity. Kanakapura informed us that though its installed capacity is 200 basins, they have been authorised to run only 130 basins from 1st April, 1969 by the Board of Management for Government Sericulture Industry. Kollegal represented that insufficient supply of cocoons and loss incurred per kg. of raw silk produced, made them keep the monthly production target to a manageable level. It was also stated that the disadvantage experienced by them for the working of the modernised basins as compared with the operation of the Italian type basins was another reason for the idle capacity of the former types. In fact out of 200 modernised basins only 35 basins were actually used during the year. *It is a pity that the filature units should have discovered that there were various handicaps in operating the new basins only after considerable amount of money had been spent in modernising them. Such operational difficulties could well have been thought of before undertaking the modernisation of the basins. If this had been done considerable ungainful expenditure could have been saved.* The remaining three units stated that labour absenteeism was the major cause for under utilisation. We are informed that to bring down the absenteeism an attendance bonus scheme has been introduced in the Government filatures along with other various production bonus schemes under Truce Agreement 1973 which took effect from 1-4-1973. Under the Truce Agreement, the norms of production were scaled down as compared to what were followed, as a matter of practice upto 31-3-1973. The minimum production of silk per basin day for 20/22 denier was being adopted at 500 gms. for control over the reelers' performance, with effect from 1-4-1973 this norm has been lowered to 460 gms. where cocoons of irrigated mulberry area are reeled and to 44/ gms. for cocoons procured from rain-fed areas. In relation to these norms, certain norms have been fixed for deniers finer than 20/22 as also coarser than 20/22. For equating the production under different deniers in terms of 20/22 deniers these revised norms were taken into consideration and the equated volume of production has been shown against item 6 in the table above. The actual average performance of the filatures has been indicated against item 7 and their comparable overall operational efficiency against item 8 of Table 10.1. *This study of the working of the filatures suggests that there is much room for improvement in the operational efficiency and reduction in the cost of production of raw silk.* The utilisation of man days per basin, as far as could be assessed by our Cost Accounts Officer with the help of available data, indicates appreciable disparities amongst the units *inter se. It is necessary for filature to take suitable measures to economies the use of man power. There is also scope to reduce renditta and silk waste.* The quality of cocoons as also the operatives' skill play a large part in reducing the renditta and silk waste. It was not possible for us to find out how much of the wastage in cocoon consumption and how much of silk waste were due to bad quality of cocoons or due to deficiency in the operatives' skill. Kanakapura unit has the advantage of receiving cocoons from the irrigated areas and this circumstance, *inter alia,* appears to have helped that unit to achieve an economy in cocoon consumption and silk waste as compared to others. *Recently various incentive schemes such as renditta saving bonus and waste control measures have been introduced in the Karnataka Government run filatures under a Truce Agreement. We expect that with this Agreement and genuine effort on the part of all concerned. it should be possible for such units to achieve greater operational efficiency and economy in cocoon consumption and silk waste and there by reduce the cost of production of raw silk.* We took the opportunity in the present enquiry to find out the silk content comprising of good raw silk obtained and silk waste resulting in the process, on an average in the cocoons procured by the filatures from the different areas in the State, having various soil properties and climatic conditions and the results of our study have been entered in item 14 in the table. Item 15 exhibits the average values paid per 100 gms. of silk content in the cocoons. The value paid varies only marginally from unit to unit although the silk content in the cocoons differs from region to region. The trading results of the filatures have been covered in a nut sheel by the items 16 to 19 in the table Due to the high costs of production of the filature raw silk without corresponding price realisation in the markets perhaps due to competitive prices offered by charkha silk and domestic basin silk, the trading results have shown a loss instead of profit.

10.4. The costs of production of raw silk for 20/22 denier in respect of the five selected units for the year ending on 31-3-73 are shown in the table below:

Rs./Kg.

	Kanakapura	Kollegal	Mysore	Chamrajanagar	Santhemarahally	Wieghted Average
1. Net cost of Cocoon .	160.42	192.02	181.40	193.00	186.86	181.36
2. *Conversion Cost*						
(a) Power, light & Fuel	3.36	4.28	3.88	6.62	5.78	4.48
(b) Consumable & repair Stores	3.46	1.89	5.00	2.17	4.72	3.07
(c) Labour . .	27.01	40.64	37.10	35.74	33.42	35.21
(d) Salaries . .	4.11	6.96	9.01	5.59	4.10	6.19
(e) P.F., E.S.I., Pension contribution, leaveand gratuity	3.32	7.98	4.95	3.50	3.04	5.24
(f) Depreciation .	0.37	1.20	1.69	1.33	1.67	1.13
(g) Overheads . .	2.02	3.39	3.62	2.08	2,14	2.75
(h) Packing materials .	24	0.17	0.32	0.17	0.36	0.24
3. Total Conversion Cost .	44,89	66,51	65.57	57.20	55,23	58.31
4. Total cost of production Ex—filature.	205.31	258.53	246.97	250.20	242.09	239.67

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The total cost of production per kg. is lowest for Kanakapura and highest in the case of Kollegal. The low renditta in case of Kanakapura has brought about a great saving in cost of cocoon. The higher operational efficiency as is evident from the higher output per basin day has also contributed towards its lower cost of conversion. This unit, we were told operates certain basins (4 ends) on contract. We did not go into details of study of the economies of the contract working and departmental working and for our purpose considered both the workings together. In case of Kollegal the output per basin day is lowest and further they have not been able to operate the modernised basins gainfully so far. The lower capacity utilisation and low output per basin day have resulted in an increased incidence of the cost of conversion. The Mysore unit has to pay extra rates of City D.A. including H.R.A. and C.C.A. to its staff and workers. As a result the incidence of salaries and wages is higher compared with the figures for other units. Its output per basin day is highest except for Kanakapura and the employment of workers per basin is also lowest but this economy is not reflected in the cost structure because of higher D.A. rates. The costs of conversion for Chamrajanagar and Santhemarahally are of the same order and stand in the middle row between the high cost and low cost units. The consumption of fuel in these two units is very high as compared to the figures of other units. The management of these two units should take steps to reduce the fuel consumption without impairing the efficiency of production.

10.5. **Estimates of Costs:**

10.5.1. In our Review Report of 1973, we recommended protective tariff on the basis of the comparison of the actual cost of production for 1971-72 with landed cost (ex-duty) and did not frame any estimate of cost of production for the future.

10.5.2. We have given considerable thought to the question as to what approach we should adopt in respect of the present protection inquiry. Due to rise in price, the cost of production for 1972-73 set out in Table 10.1 needs further revision. At the same time, any attempt to estimate the future cost beyond 1974 is also beset with some difficulties. The principal element in the cost of production of filature silk is the cocoons cost which represents about 76 per cent of the total cost. The Central Silk Board has various plans to stabilize the prices of cocoons. The degree of success of these schemes cannot be foreseen at this stage. Moreover, the scheme of the introduction of new bivoltine hybrid cocoons on a large scale, as planned, is expected to give much greater yield and better quality and reduce renditta, but how far these improvements will go to decrease the net cocoon cost, cannot be easily quantified at this stage. In the circumstances, it appears to us that estimating the future value of the cocoons cost with any degree of certainty is not practicable. Secondly, the c.i.f. prices in recent times have shown very wide fluctuations. The c.i.f. prices which exhibited a rising trend till August 1973, so much so as to make the continuance of protection almost unnecessary, are since September 1973 showing a declining trend. In the absence of reasonably stable c.i.f. prices, a comparison of the current c.i.f. prices (i.e. landed cost) with any future estimated cost with a view to assess the price disadvantage to indigenous raw silk has also no firm basis. We, therefore, feel that the proper comparison to assess the price disadvantage would be the comparison between the cost of production worked out for 1972-73 as updated upto 1973-74, and the average c.i.f. price for the current period. We have, however, along with updating the actual cost of production also estimated the future cost as usual for the purpose of comparison.

10.5.3. As mentioned above, the main hurdle in the framing of an estimate is the difficulty in pre-determining the net cost of cocoon due to the unpredictable nature of its prices. We have therefore decided to estimate the conversion cost and to consider the cost of cocoon on the available known conditions.

10.5.4. We obtained from the selected units some important items of expenses during the first six months of 1973-74. With the help of the pattern of production as also with the trend of expenses during the period, attempts were made to update the cost of conversion of the costed period to the level of prices during 1973-74 and also to frame an estimate of average cost of conversion for the three years 1975 to 1977. It was observed that production of the costed filatures for the year 1973-74 increased between 7 per cent and 12 per cent over the actual production for 1972-73. We anticipate that the filatures would be able to keep up this production trend for the following years. On such expectation we have adopted an average annual volume of production of these five units at 88,400 kgs. during 1973-74 as well as during 1975 to 1977 against 81,017 kgs. during 1972-73. The pay structure of the Government filatures has been recently revised upwards. In updating as also in estimating the salaries and wages paid during this period, the impact of enhanced pay has been considered. The annual increments stipulated in the revised pay scales and the known rates of D.A. allowing therein certain increases to meet the probable rise in D.A. in future, have also been taken into account. The other fringe benefits, viz., employer's contribution to Provident Fund, E.S.I., Gratuity, leave salaries and pension have been duly admitted in the estimates. The recent increase in power tariffs and coal prices inclusive of freight have been accounted for and also necessary provision made for probable increase in the prices of consumable and repair stores, packing materials and items of other overheads. The depreciation of the assets has been computed at the rates prescribed by State Government. It was noticed that the element of depreciation is small as the major part of the value of Plant and Machinery has already been written off. We took the incidence of depreciation during the actual period in the updated cost as also in the estimate, after adjusting the same to account for the small increase in production. The various incentive schemes envisaged in the Truce Agreement are expected to effect some economy in the power and fuel consumption and so a reasonable saving under these heads over the levels of consumption during 1972-73 has been assumed.

10.5.5. The updated and estimated conversion cost for three years are shown below:—

Conversion cost of 20/22 deniers

Rs./Kg.

	Updated cost upto 1973-74	Average for 1975 to 1977
1. Power & Fuel	4·42	5·02
2. Consumable and repair stores	3·39	3·92
3. Labour	34·23	36·87
4. Salaries	6·03	6·61

	Updated cost upto 1973-74	Average for 1975 to 1977
5. Provident Fund, E.S.I., Leave salary, Pension and Gratuity	6·02	6·63
6. Depreciation	1·04	1·04
7. Overheads	2·69	3·04
8. Packing materials	0·28	0·30
9. Total Conversion Cost	58·10	63·43

It will be seen from the above that the weighted average updated conversion cost and the weighted average conversion cost during the costed period are more or less the same. The increase in production and certain assumed operational efficiency in 1973-74 have offset the price increases that took place in this year compared with those for 1972-73.

10.5.6. We obtained from the selected filatures details of cocoon consumption, both quantity and value, and weight of silk waste arising in respect of the financial year 1973-74. The renditta varied between 14.1 and 18.5 resulting in a weighted average figure of 16.3. Based upon the available figures the weighted average net cost of cocoon per kg. of raw silk in respect of these five units worked out to Rs. 253.20 for 1973-74 against Rs. 181.36 for the costed period. The cocoon cost represented 75.7 per cent of the total cost of production during 1972-73 and the amount of Rs. 253.20 works out to 81.3 per cent of the updated cost of production. It is the cocoon cost which ultimately determines the competitive position of indigenous raw silk *vis-a-vis* the foreign products. The uncertainty regarding the future price situation in respect of cocoons has already been referred to in paragraph 10.5.2. After taking into consideration the various relevant circumstances we have adopted a notional net cost of Rs. 279.45 per kg. of cocoon for the period of 1975 to 1977 for which estimates have been framed. This notional net cost, which has been arrived at on the assumption that the cocoon cost for the coming three years will be on the average about 10 per cent higher than the prevailing average rate for 1973-74, has been added to the estimated conversion cost in the determination of the estimated cost of production.

10.5.7. The return has been provided at 15 per cent on the capital employed and the working capital has been assessed at three months cost of production less depreciation.

10.5.8. After considering various aspects as discussed above we have arrived at the following updated cost and the estimates of cost for future:

20/22 denier (Rs./Kg)

	Updated cost	Estimate for future
1. Cocoon cost	253·20	279·45
2. Conversion cost	58·10	63·43
3. Cost of production	311·30	342·88
4. Return	12·89	14·06
5. Fair selling price	324·19	356·94

11. Views on continuance of protection.

11.1. The Central Silk Board has advocated continuance of tariff protection to the Sericulture Industry for a further period of five years at the existing rates of protective duty. The principal reason stated is that the indigenous industry would not be able to compete against the imported silk, without adequate protection, as the present cost of production of the indigenous filature raw silk is higher than the c.i.f. price of the imported silk. The Board is of the view that under the present circumstances of rising wages, overheads, interest rates etc. it would be unreasonable to anticipate any decrease in the cost of production of indigenous filature raw silk with the existing raw material and low output per basin.

11.2. The State Governments who have replied to our questionnaires have also pleaded for continuance of tariff protection to the industry. According to them, it may take a few more years for the industry to effectively adopt the research findings in practice and make real progress in terms of improvement of quality and reduction in cost of production of raw silk. The Government of Karnataka has, in addition, suggested that the protective duty be raised from 30 per cent to 100 per cent *ad valorem.*

11.3. On the other hand one of the representatives of a firm, which has been long in the silk trade, has strongly contended that as a result of continuous protection for a long period the industry has not developed on healthy lines and only if the protection is withdrawn the industry will implement various measures for healthy growth. According to the firm if the production is to be increased, the quality has to be improved to the international standard and the prices have to be brought down to a reasonable level. It feels that the industry having obtained long lease of protection has failed in its duty to fulfil various obligations expected of it and the easiest excuse it has is that the development work must take its own time. It has cited the example of a less developed country like Korea which did a near miracle during the last five years in the Sericulture Industry.

12. Need for protection.

12.1. The industry has been enjoying protection since 1934. As indicated in paragraph 3.4.3. the working of the Filature Sector of the Industry, which is the principal beneficiary of the continuance of protection, needs to be improved in many respects. We were told during the public inquiry that the recent research findings in respect of new techniques of rearing bivoltine races and tasar culture on Oak, together constitute a real break-through in the Research field and are expected to confer substantial economic benefits on the Industry in the form of reduction of cost, improved yield and increased production. The perennial losses of the filature units are also expected to be reduced as a consequence. In fact the Chairman of the Central Silk Board stressed at the Public Inquiry that the Sericulture Industry has now reached the 'take off stage' and needs continuance of protection. On the other hand, a section of the trade, as indicated in paragraph 11.3 has taken the view that the continuance of protection is contributing to some extent to the present inefficient working of this sector.

12.2. It is certainly possible to argue that the Sericulture Industry has not made as rapid a progress as it should have since it was granted protection. *At the same time it does appear to us that whatever progress the Industry has made, though not spectacular, has been largely possible because of the protection it has enjoyed all this while. It is obvious that protection cannot be continued indefinitely, but this is hardly the time to withdraw it for we feel that the Industry appears to have reached a crucial stage of rapid development* where there is a distinct possibility of its becoming sufficiently strong and self reliant before long to face foreign competition without the help of the crutches of protection. Withdrawing protection at this stage may have an adverse psychological effect on its development. *Taking an overall view of the situation we consider that protection to the Industry should be continued for another five years i.e. upto* 31*st December* 1979. *During the course of that year a comprehensive study of the Industry should be undertaken to see whether the time has not finally come to discontinue the protection from* 1-1-1980.

13. Measure of Protection.

13.1. The following table compares the fair ex-works price of indigenous raw silk worked out on the basis of the cost of production as updated upto 1973-74 as well as on the basis of the future estimated cost with the average c.i.f. price without duty for Japanese 20/22 deniers raw silk.

TABLE 13.1

(1) C.i.f. prices of Japanese 20/22 denier raw silk (average for 6 months of 1974).	248·33
(2) Clearing charges	0·50
(3) Landed cost without duty	248·83

TABLE 13.1—*Contd.*

(4) Estimated fair ex-works price of indigenous raw silk of 20/22 deniers on the basis of estimated future cost.	356·94
(5) Difference between landed cost without duty and fair ex-works price at (4).	108·11
(6) Difference at (5) as a percentage of c.i.f.	43·44
(7) Estimated fair ex-works price of indigenous raw silk of 20/22 deniers on the basis of updated cost.	324·19
(8) Difference between landed cost without duty and fair ex-works price at (7).	75·36
(9) Difference at (8) as a percentage of c.i.f. . . .	30·28

13.2. Thus while the comparison of c.i.f. prices with the fair ex-works price estimated on the basis of future cost indicates the measure of protection of about 44 per cent *ad valorem*, the comparison of the same with the fair ex-works price estimated on the basis of updated cost for 1973-74 indicates that the measure of protection required for raw silk would be about 30 per cent *ad valorem*. For reasons explained in paragraph 10.5.2, the comparison of the c.i.f. prices with the updated costs appears to us to be more appropriate and this indicates that the protective duty need not be raised above the current level of 30 per cent.

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13.3. There are other reasons also which suggest that any upward revision of the present protective duty is not desirable. A tariff protection greater than what has been granted at present is likely to slacken the intensity of the effort needed to improve the efficiency of the filature sector. The prices of international markets have been fluctuating widely and actually for a short period (Jan.-April 1973) the indigenous raw silk was found to enjoy some advantage over the corresponding imported products. The Central Silk Board has also expressed the view that the present quantum of protective duties is sufficient to safeguard the interest of the Industry. Moreover, imports have been severely restricted through quantitative restrictions and during the year 1973-74 the quantity imported was only 6437 kgs. The tariff rate is thus operative only in respect of the small quantity permitted to be imported and that too only as an incentive to the exporters. Taking all these factors into consideration we feel that though the Sericulture Industry needs continuance of protection for some more time the quantum of protection need not be higher than that at present. *The protective duty on Raw Silk [I.C.T. Item 46(a)] may, therefore, be maintained at the existing rate, namely,* 30 *per cent ad valorem* (exclusive of the auxiliary duties of customs).

13.4. As regards the other products of the Sericulture Industry, namely silk-worm cocoons [I.C.T. Item 46(b)], Silk Waste [I.C.T. Item 46 (1)], Silk yarn [I.C.T. Item 47], and silk fabrics [I.C.T. Item 48], as on previous occasions, we have not determined the fair ex-works prices for them. As practically there are no imports of these items, c.i.f. prices for them are not available. *We recommend that the existing rates of protective duties on the above items, as shown in Table* 1 *of paragraph* 1.2 *may also be continued for a further period of five years ending* 31*st December,* 1979.

Our conclusions and recommendations are summarised below:

14. Summary of conclusions and recommendations.

(1) In 1967, India occupied fourth place in the production of Mulberry Raw Silk amongst Sericultural countries and produced 5 per cent of the world production. In 1972, though the percentage share of India in World production remained unchanged, India occupied fifth place among Sericultural countries in spite of the fact that its production during the period 1967—72 had increased by 27 per cent as against the world's 18 per cent.

(Paragraph 3.1.2.)

(2) The Central Silk Board's grievance against the lower utilisation of allocated funds on sericulture by the States is to some extent justified. The States would no doubt like to have discretion to reallocate funds among non-specified items according to the changes in priorities necessitated by circumstances prevailing in the States. However, in view of the large

potential of the sericulture industry for creating gainful employment in rural areas, it appears to us necessary for the States to have a more sympathetic and long term policy in respect of expenditure of funds on sericulture.

(Paragraph 3.1.4.)

(3) The total area under mulberry cultivation increased from 93,284 hectares in 1968 to 110,264 hectares in 1973 showing a percentage increase of about 18 per cent. During the same period, area under irrigation increased from 16,962 hectares to 30,421 hectares i.e. by about 80 per cent.

(Paragraph 3.2.1.1)

(4) The State Government of Karnataka has complained that though the crash programme has been approved by the Government of India, the rate of flow of funds has been extremely slow and has, therefore, requested the Commission to make a strong recommendation in this regard. We are hardly in a position to comment on this suggestion. We, however, bring it to the notice of the Government of India.

(Paragraph 3.2.1.2)

(5) The Central Silk Board should undertake a thorough study of the marketing practices in the primary cocoon markets in different States with a view to suggesting to the concerned State Governments proper regulation of these markets on some uniform lines, with suitable legislative backing if necessary, so that the reeling units get adequate supplies of quality cocoons and rearers a fair price linked to the quality of their cocoons.

(Paragraph 3.3.4.5)

(6) (i) We generally agree with the view that filature sector of the Sericulture Industry, which alone has the potential to produce raw silk of international quality to meet the increasing demand for exports and to reduce the country's dependence on imports of quality silk deserves careful nursing.

(ii) Since the major effect of the regulation of imports and tariff protection to the Sericulture Industry is to restrict the competition which the indigenous filature silk has to face from imported silk, we feel that the problems relating to the working of the filatures require urgent attention with a view to taking remedial action for reducing the cost of production and improving the quality of the Filature silk.

(iii) We hope that Central Silk Board will work out a well co-ordinated plan of action for making filatures work on efficient commercial lines and ensure its effective execution by the concerned State authorities.

(Paragraph 3.4.3.4)

(7) There appears to have been general improvement with regard to the Renditta obtained in various States including Jammu and Kashmir.

(Paragraph 3.4.5)

(8) The Government Spun Silk Mills, Channapatna (Karnataka) and The Assam Spun Silk Mills, Assam have not been able to utilise more of the silk waste produced in the country and thereby improve their capacity utilisation.

(Paragraph 3.6.1)

(9) We hope that the Central Silk Board will take note of the complaints that the Spun Silk Mills are not getting sufficient quantity of high grade silk waste and that the quality of the yarn marketed by them is not of international quality and suggest suitable remedial steps to the State Governments concerned.

(Paragraph 3.6.5)

(10) We hope that some effective action institutional and/or otherwise will be taken by the Government in consultation with the Central Silk Board to stabilize the prices of raw silk as a long term measure in such a way as to ensure a fair price to Silk worm rearers and a steady supply of raw silk to consumers at reasonable prices.

(Paragraph 3.8.2)

(11) We are inclined to agree with the view of the Central Silk Board that it is not possible to give any precise estimate of future demand for raw silk and have not attempted any estimate of our own of the same.

(Paragraph 4.3)

(12) It is necessary that the Silk Conditioning and Testing Houses at Bangalore and Srinagar are modernised and properly equipped for regular testing of filature raw silk so that the filature units are in a position to attach certificates indicating the results of the tests to their consignments of raw silk released for sale. The Central Silk Board should examine this issue with a view to taking suitable action in the matter.

(Paragraph 5.3.3)

(13) We have been informed by the Central Sericultural Research and Training Institute, Mysore, that it has demonstrated that the Government Farms as well as Sericulturists can successfully rear bivoltine silk worms throughout the year. We have been further informed that the rearing of these newly evolved high yielding races of silk worm has opened up a new Chapter in the era of production of international quality silk.

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(Paragraph 6.2.1)

(14) The Central Tasar Research Station, Ranchi has informed us that it has developed a new field in Tasar Silk, namely, Tasar culture on oak. The existence of nearly 20 lakh acres of oak plantation in the Sub-Himalayan region is expected to give vast potential for production of Tasar raw silk. As there is practically no cost for the maintenance of the plantation, Tasar silk on oak is expected to be relatively cheaper and capable of competing China in the World Market.

(Paragraph 6.2.3)

(15) We hope that the question of effective co-ordination between the Research Institutions and the State Sericulture Departments, which alone can ensure rapid dissemination of

new techniques, would receive all the attention it deserves from the Central Silk Board and the concerned State Departments.

(Paragraph 6.4)

(16) It is a pity that the filature units should have discovered that there were various handicaps in operating the new basins only after considerable amount of money had been spent in modernising them. Such operational difficulties could well have been thought of before undertaking the modernisation of the basins. If this had been done considerable ungainful expenditure could have been saved.

(Paragraph 10.3)

(17) The study of the working of the Government of Filatures suggests that there is much room for improvement in the operational efficiency and reduction in cost of production of raw silk. It is necessary for filatures to take suitable measures to economise the use of man power. There is also scope to reduce renditta and silk waste. Recently various incentive schemes such as renditta saving bonus and waste control measures have been introduced in the Karnataka Government run filatures under a Truce Agreement. We expect that with this agreement and genuine effort on the part of all concerned, it should be possible for such units to achieve greater operational efficiency and economy in cocoon consumption and silk waste and thereby reduce the cost of production of raw silk.

(Paragraph 10.3)

(18) It appears to us that whatever progress the Sericulture Industry has made, though not spectacular, has been largely possible because of the protection it has been enjoying. It is obvious that protection cannot be continued indefinitely but this is hardly the time to withdraw it as the Industry appears to have reached a crucial stage of rapid development.

(Paragraph 12.2)

(19) Taking an overall view of the situation, we consider that protection to the Industry should be continued for another five years i.e. upto 31st December 1979. During the course of that year a comprehensive study of the industry should be undertaken to see whether the time has not finally come to discontinue the protection from 1-1-1980.

(Paragraph 12.2)

(20) The protective duty on Raw Silk [I.C.T. Item 46(a)] may be maintained at the existing rate, namely, 30 per cent *ad valorem* (exclusive of the auxilary duties of customs).

(Paragraph 13.3)

(21) The existing rates of protective duties on other products of the Sericulture Industry, mentioned in Table 1, Paragraph—1.2 may also be continued for a further period of five years ending 31st December, 1979.

(Paragraph 13.4)

15. Acknowledgements.

15.1 We wish to express our thanks to the manufacturers, consumers, importers and the concerned Government Departments for furnishing to us detailed information in connection with this Inquiry. We are also thankful to the Central Silk Board for its valuable assistance at various stages of the investigations.

15.2 We place on record our appreciation of the hard work put in by the officers and staff of the Commission associated with this Inquiry.

S. S. SAXENA
Secretary

BOMBAY,
29th August, 1974.

D. P. ANAND
Chairman

PRAMOD SINGH
Member

M. B. PALEKAR
Member

APPENDIX I

[*Vide* Paragraph 2.1]

List of firms bodies and associations to whom questionnaires/ letters were issued and those who replied

*Indicates those who have replied

A. MULBERRY CULTIVATORS/GRAINEURES/SILKWORM REARERS

1. Shri H. Aswathnarayana,
S/o Hanumegowda,
P.O. Yeliyur,
Devarahalli Taluk,
Bangalore Dist.

2. Shri P. G. Aswathappa,
Chairman,
Patrenahalli,
Ajwara Post,
Chickballapur T. Q.,
Kolar Dist.

3. Shri Pattamallappa,
Taluk Board Member,
Karinanjanapura,
Chamarajanagar,
Mysore District.

4. Shri A. M. Chick Munigowda,
Anur, Sidhacghatta Post,
Kolar Dist.

*5. Shri B. S. Patil,
Garan, Dharwar T. Q.
Dharwar Dist.

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6. Shri Sidde Gowda,
S/o Malle Gowda, Kyasapura,
Kyasapura Post,
Ramanagaram TQ.,
Bangalore Dist.

*7. Shri Haji Syed Munir,
Raw Silk Merchant,
Masjid Mohalla,
Ramanagaram,
Bangalore Distt.

8. Shri Mohamed Tasiuddin,
Raw Silk Merchant,
Ramanagaram, (Bangalore Dist)

9. Shri Mohamed Sanulla,
S/o Lal. Sauriulla,
Raw Silk Merchant,
Ramanagaram,
Bangalore Distt.

10. Shri Jabbar Shariff,
Pupa Merchant,
Nalbund Wadi,
Ramanagaram,
Bangalore Dist.

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11. Shri V. N. Siddiah,
President, Sericulturists Co-operative Society Ltd.,
Vandraguppe,
Channapatna P.O.
Bangalore Dist.

12. Shri B. V. Narayanaswamy,
Sericulturists, Handiganala,
Sidlaghatta TQ. Dist. Kolar.,
(Karnataka).

13. Shri D. Narayanaswamy,
Sericulturists,
Devanahalli,
Bangalore Dist.

14. Shri Venkata Gowda,
Taluk Board President,
Devanahalli,
Bangalore Dist.

15. Shri Gundu Rao,
Sericulturist & Taluk Board Member,
Henur, Near Kunigal,
Tumkur Dist.
(Karnataka).

16. Shri B. Abdul Kareem,
Sericulturists,
Kempanahalli Post,
Kunigal TQ.
(Karnataka).

17. Shri Deve Gowda,
Sericulturists,
Markandapura, P.O.
Kolar Dist.
(Karnataka)

18. Shri Ramaiah,
Sericulturists,
Talagavara P.O.
Dist. Kolar
(Karnataka).

19. Shri Ramachandra Reddy,
Sericulturists,
Giddanahalli P.O.
Kolar Dist.
(Karnataka).

20. Shri B. .K Narayanaswamy,
Sericulturists,
Hundignal P.O.,
Kolar Dist.
(Karnataka).

21. Shri Muniyappa,
Sericulturists,
Kambadahalli P.O.,
Dist. Kolar
(Karnataka)

22. Shri Raja Gopal,
Sericulturists,
Kambadahalli P.O.,
Dist. Kolar,
(Karnataka).

23. Shri P. Veerappa,
Member, Taluk Development Board, Bhaktarahalli,
Sidlaghatta TQ.,
Kolar Dist.
(Karnataka).

24. Shri Y. C. Bajappa,
Sericulturists,
P.O. Devanahalli,
Bangalore Dist.

25. Shri S. Puttabasappa,
Silkworm Rearer,
Dugahatty Village,
Honnur Post,
Yelandur TQ.,
Mysore Dist.
(Karnataka)

26. Shri K. B. Jayadohoppa,
Gundlupet,
Mysore District
(Karnataka).

27. Shri T. G. Seshagiri Rao,
Licensed Seed Preparer,
T. Narasipur,
(Karnataka).

28. Shri M. Munegowde,
Licensed Seed Preparer,
Anur P.O.,
Sidlaghatta TQ.,
Kolar
(Karnataka).

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*29. Shri K. Siddegowda,
Licensed Seed Preparer,
Kanakapura,
Bangalore Dist.

30. Shri H. D. Nanjappa, B.Sc.,
Licensed Seed Preparers,
Chickaballapur
(Kolar Dist.).

31. Shri Devegowda,
Sericulturists,
Kamagere—Kollegal TQ.
(Karnataka).

32. Shri Ranga Rao,
Licensed Seed Preparer & Silk Merchant,
Chickaballapur,
Kolar Dist.

33. Shri M. P. Abdul Jaffar,
Raw Silk Merchant,
Bazar Street,
Chickaballapur
(Karnataka).

34. Shri Narayanaswamy Gowda,
Licensed Seed Preparer & Sericulturist,
Bhaktarahalli,
Devanahalli Post
(Bangalore Dist.).

35. Shri Hazi Jaffar Ali Biswas,
Sujapur P. O., Sujapur,
Dist. Malda (W.B.).

36. Shri Mansur Main,
Sujapur P. O., Sujapur,
Malda Dist. (W.B.).

37. Shri Sudamali Biswas,
Village: Silampur,
P.O. Kaliachak,
Dist. Malda (W.B.).

38. Shri Ujir Biswas,
Village: Silampur,
P.O. Kaliachak,
Dist. : Malda (W. B.)

*39. Shri Hafijuddin,
Village: Chaspara,
P.O. Sujapur,
Dist. Malda (W.B.).

40. Shri Nagendranath Dutta,
P.O. Sujapur,
Malda (W.B.).

41. Shri Kaffan Biswas,
P.O. Sujapur,
Dist. Malda.

42. Shri Taffazal Hussain,
Chaspara, P.O. Sujapur,
Malda (W.B.).

43. Shri Ali Hussain,
P.O. Shershahi,
Malda (W.B.).

44. Shri Aga Milki,
P.O. Shershahi,
Malda (W.B.).

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B. FILATURE UNITS

1. Shri M. Syed Dastagir,
Yasmin Silk Filature,
Sidlaghatta Town,
(Kolar Dist.)
Karnataka

2. M/s. Mispa Silk Filature,
Kanakarai (Kollegal TQ.),
Karnataka.

3. Shri Syed Abdul Majid,
Tajmahal Silk Filature,
Sidlaghatta Town,
Kolar Dist.),
Karnataka.

4. Hoji Amu Munshi Filature,
Lakhipur,
Kalia Chak (Malda) W.B.

*5. M/s. Kisan Silk Industries,
Mellur, Sidlaghatta,
Kolar Dist. (Karnataka).

*6. The Govt. Silk Filature,
Madhughat, P.O. Sujapur,
Dist. Malda (W.B.).

*7. The General Manager,
Govt. Silk Filature,
Kollegal (Mysore Dist.).

*8. The General Manager,
Govt. Silk Filature,
Mysore (Karnataka).

*9. The General Manager,
Govt. Silk Filature,
T. Narasipur (Karnataka).

*10. The General Manager,
Govt. Silk Filature, Mamballi
(Bangalore Dist. Karnataka).

*11. The General Manager,
Govt. Silk Filature,
Chamarajanagar (Karnataka).

*12. The General Manager,
Govt. Silk Filature,
Santhemarahalli
(Karnataka).

*13. The General Manager,
Govt. Silk Filature,
Kanakapura
(Bangalore Dist.)
(Karnataka).

*14. Government Central Silk Farm,
Prem Nagar,
Dehradun (U.P.).

15. The Sericulture Development
Department,
Government of J & K,
Industries & Commerce Deptt.,
Jammu.

*16. Kashmir Sericulture Dept.,
Government of J & K,
Srinagar—Kashmir.

*17. Silk Filature,
Nurpur, Himachal Pradesh.

18. Government Silk Factory,
Yeshwantsagar, Hatod
(Indore Dist. M.P.).

C. CHARKHA—REELERS/COTTAGE BASINS

1. Shri B. N. Mehaboobkhan & Bros.,
Raw Silk Producers,
Sidlaghatta (Kolar Dist.).

2. Shri Hydubaig,
Raw Silk Reelers & Merchant,
Tope Khan Mohalla,
Ramanagaram,
Bangalore Dist.

3. M/s. Kanka Silk Industries,
Kanakapura,
Karnataka State.

4. M/s. Swastic Silk Industries,
Kanakapura
(Karnataka State).

5. Shri Mantayya,
Charka Reeler, Mamballi,
Yeelunder TQ., Karnataka State.

6. Shri Chote Sahib,
Cottage Basin Reeling Unit,
Ramangaram
(Bangalore Dist.),
Karnataka.

7. M/s. Gaffar Qureshi,
Silk Merchant,
Ramangaram (Bangalore Dist.).

*8. Shri Tamizuddin Sheikh,
P.O. Beldanga,
Dist. Murshidabad
(W. Bengal).

9. Shri S. R. Sen,
Director of Production,
Abhoy Ashram, P.O. Birati,
Calcutta-700051.

10. Shri B. N. Mehboob Khan,
Silk Reelers & Silkwaste Dealer,
Jaimahal Silk Filature,
Sidlaghatta Town,
Kolar Dist.

11. Shri Attuuah Khan,
S/o Ghause Khan,
Raw Silk Merchant,
Modar Khan Mohalla,
Ramanagaram (Karnataka).

12. M/s. Mehadeva Silk Industries,
Mudigundam (Kollegal TQ.),
Karnataka.

13. Shri G. L. Ramachandra Rao,
Domestic Basin Owner,
Ikkadahalli (Kollegal TQ.),
(Karnataka).

14. Shri Ali Raochegowda,
Surapuram (Kollegal TQ),
Karnataka.

15. Abdul Rub,
Silk & General Merchant,
M. G. Road,
Chintamani,
Kolar Dist.

16. M/s. Abdul Khalique,
Silk Merchant,
Ramanagaram,
Bangalore Dist.

17. Shri Bhagwandas Sarda,
Secretary, Khand Seva Mandal,
Spinners, Reelers and Weavers.
(Certified by the Khadi & Village Industries Commission),
Bishnupur,
P.O. Bishnupur,
Dist. Bankura (W.B.).

18. M/s Kabadi Shankarsa & Sons,
74, Rangaswamy Temple Street,
Bangalore-560002.

19. Shri Khoday Eswarsa & Sons,
10, 1st Main Road,
Gandhinagur,
Bangalore-560009.

सत्यमेव जयते

20. Shri Srinivasa Silk Throwing & Weaving Mills No. 7,
Mission Road,
Bangalore-560027.

21. Sri M. S. Muddaiah & Sons,
Sowrastrapet,
Factory at 20/35,
2nd Main Road,
Srirampuram,
Bangalore-560021.

22. M/s. Gangadharsa & Sons,
Mfr. & Exporters of Silk Sewing Thread,
M. 5, Purna Seshachar Lane,
Bangalore.

23. Sri Sujed Salaha,
Masjid Mohalla,
Ramanagaram,
Bangalore Dist.

24. Sri K. C. Venkataramaniah,
Chickpet,
Doddaballapur,
Bangalore Dist.

25. M/s. N. N. Amavasye & Sons,
Mfrs. of Quality Silks,
Tank Road,
Doddaballapur,
Bangalore Dist.

26. M/s. Mangalambika Silk Twisting Factory,
18, Andrappa Mudaliar Street,
Kumba Konam,
Tamil Nadu.

27. M/s. New Bangalore Silk Mills,
18, J. C. Road,
Bangalore-560002.

28. Sri Gajanana Silk Throwing Factory,
Mangadi Road,
Bangalore-560023.

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29. M/s. National Silk Mills,
No. 4 & 5, Narayana Setti Pet,
Bangalore-560002.

30. Sri Seethalakshmi Textiles,
No. 2, Nagarthpet,
Bangalore-560002.

31. Sri Lakshi Venkateswara Silk Throwing Factory,
Anekal Town,
Bangalore Dist.

32. M/s. Hindusthan Silk Twisting Factory,
Kumandar Mohalla,
Ramanagarm, Bangalore Dist.

33. Sri D. V. Thimrraiah & Sons,
Gandhinagar, Doddaballapur,
Bangalore Dist.

34. Sri Lakshmi Silk Twisting Factory,
Arni (N. Arcot),
Tamil Nadu.

35. Shri B. G. Veeranna,
Ganni Shankar Silk Weaving & Twisting Factory,
18, Choulaglli,
Bangalore-560002.

D. SPUN SILK MILLS

*1. Assam Spun Silk Mills,
Jagi Road,
Assam.

*2. Government Spun Silk Mills,
Channapatna,
Karnataka.

*3. Bihar Spun Silk Mills,
Bhagalpur,
Bihar.

4. Shri S. O. Zatakia,
Glob Fabrics,
Modern Mansion,
67, Hughee Road,
Bombay-7.

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E. SILK WEAVING FACTORIES

1. M/s. Bangalore Woollen, Cotton & Silk Mills,
Agraharam Road,
Bangalore-560023.

2. M/s. Raja Silk House(P) Ltd.,
Basavaraja Market, P.B. 6709,
Bangalore-560002.

3. M/s. Chamundi Textiles (Silk Mill) Limited,
Ramanagaram,
Bangalore Dist.

4. Sri K. Ramalingam,
M/s. Rekha Textiles,
No. 3. North Public Square,
Basvanagudi,
Bangalore-4.

5. Sri M. Pillappa,
M/s. Prabha Silk Weaving Factory,
41, 4th Cross, Lalbagh Road,
Bangalore-560027.

6. M/s. Saboo Silk Mills,
5th Block, Rajaji Nagar,
Bangalore-560010.

7. Sri K. V. Perumal,
M/s. K. Sreenivasaha & Co.,
Sri Lakshmi Venkateswara Malyam Dharmavaram,
Ananthpur Dist. (A.P.).

8. Rehabilitation Industries,
Cooperating Factory,
P. O. Malda,
Dist. Malda (W. B.).

9. M/s. Eastern Silk Mfgs. Co. (P) Ltd.,
9th Jagmoham Mullick Lane,
Calcutta-700007.

10. The Manager,
Kshetriya Shiv Gandhi Ashram (Akbarpur),
Silk Production Centre, Sonamukhi, P.O.,
Sonamukhi, S. E. Rly.,
Bankura Dist.

*11. M/s. Kapoor & Co.,
Silk Dealers, 1st Brigade,
Srinagar (Kashmir).

12. M/s. Pearl Silks,
Silk Factory Road,
Srinagar (Kashmir).

13. M/s. Commercial Union Silk Weaving Factory,
Silk Factory Road,
Srinagar (Kashmir).

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14. M/s. Janardhana Silk House,
I-15, Jumma Masjid Road,
Bangalore-560002.

15. M/s. Suvarna Silk House,
65, Huriopet,
Bangalore-560002.

16. M/s. Kabadichicknagusa & Sons,
No. 36, Telgupet,
Bangalore-560002.

17. M/s. Chandiram's Mysore Silk Mills,
61, Srirampur,
Bangalore-560021.

18. Sri Anandaramaiah Setty,
Malkala Enterprises,
No. 460/2, Avenue Road,
Bangalore-560002.

19. M/s. Seethalakshmi Textiles,
No. 2, Nagarthpet,
Bangalore-560002.

20. Sri Vasudeva Rao,
M/s. Seethalakshmi Silks,
Dharmevaram,
Anantpur Dist.
(A. P.).

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21. M/s. Indian Textile Co. (P) Ltd.,
Great Eastern Hotel Arcade,
Calcutta (W.B.).

22. M/s. West Bengal State
Khadi & Village Industries Board,
P-8, Hyde Lane,
Calcutta-700012.

23. Govt. Silkweaving Factory,
Rajibagh, Srinagar (Kashmir).

*24. M/s. Silk Handloom Weavers Co-operatives,
Shiveen Bagh,
Srinagar (Kashmir).

25. M/s. Diamond Silks,
Ranibagh,
Srinagar (Kashmir).

26. M/s. Kashyap Silk Industries,
Gogji Bagh, Srinagar,
Srinagar (Kashmir).

27. Govt. Handloom Silk Weaving Factory,
Silk Factory Road,
Srinagar (Kashmir).

F. RESEARCH INSTITUTES

*1. The Director,
Central Sericultural Research & Training Institute,
78, Shanti Vilas, Nazarbad,
Mysore-570010.

*2. The Director,
Central Tasar Research Station,
Nirvan No. 1,
West End Park, Hehal Post,
Ranchi-834005.

*3. The Director of Research,
Central Sericulture Research Station,
Berhampore-742101
(West Bengal).

*4. Director,
Regional Sericultural Research Station,
Titabar (Assam).

G. IMPORTERS OF SILK PRODUCTS

*1. M/s. Nagindas Foolchand Chinani,
Chinai Building,
79, Masjid Bunder Road,
Mandir, Bombay-400003.

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2. M/s. Harilal Bhikhabhai & Sons,
147, Mahatma Gandhi Road,
Temple Bar Building,
2nd floor,
Bombay-400001.

H. DEALERS OF SILK PRODUCTS

1. M/s. Mysore State Silk
Handloom Weavers Central
Co-operative Society,
Near Sampangi Tank,
P. B. No. 845,
Bangalore-560002.

2. M/s. Bangalore Woolen, Cotton,
and Silk Mills Co. Ltd.,
23, Agraharam Road,
Bangalore-560023.

3. M/s. Chamundi Textiles (Silk Mills) Ltd.,
Ramanagaram,
Bangalore Dist.

4. M/s. Hanuman Weaving Factory,
27th Cross, Kilari Road,
Bangalore-560002.

5. M/s. Suvarna Silk House,
65, Huriopet,
Bangalore-560002.

6. M/s. Raja Silk House (P) Ltd.,
Basavarja Market,
Bangalore-560002.

7. M/s. Kabadi Chicknajusa & Sons,
36, Telegu Pet,
Bangalore-2.

8. Janardhana Silk House,
L-15, Jamma Masjid Road,
Bangalore-560002.

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9. M/s. Saree Centre,
23, Jamma Masjid Road,
Bangalore-560002.

10. M/s. Chandiram Bros.,
Raja Market, P. B. No. 605,
Bangalore-560002.

11. M/s. Saboo Silk Mills,
215, Basavaraja Market,
Bangalore-560002.

12. M/s. Seethalakshmi Handloom & Textiles,
67, Lalbagh Rd.,
Bangalore-560027.

13. M/s. Vijayalakshmi Textiles,
Katpadi Road,
Gudiyatham (Tamil Nadu).

14. M/s. Deviah Setty Silks,
Avenue Road,
Bangalore-560002.

15. M/s. Silk Handloom Weavers' Co-operative Society,
Kanchipuram (Tamil Nadu).

16. M/s. State Handloom Weavers' Co-operative Society,
Co-operative Society,
Gudiyatham (Tamil Nadu).

17. M/s. Radha Silk Emporium,
14, Sannadhi Street,
Mylapore,
Madras-600004.

18. M/s. Banaras Silk Museum,
28/12, Gyanbapi,
Varanasi (U. P.).

19. M/s. Raman Bros.,
13/145, Patpateshware,
Varanasi (U. P.).

20. M/s. Kanthilal & Co.,
Farrukhabad (U. P.).

21. M/s. Fancy Dyeing and Printing Works,
Sahibganj,
Farrukhabad (U. P.).

22. M/s. Government Sales Emporium,
C/o. Director of Industries,
Chittaranjan Avenue,
Calcutta.

23. M/s. Eastern Silk Mfg. Co. (P) Ltd.,
9, Jagmohan Mullick Lane,
Calcutta-700007.

24. M/s. Hindustan Handloom and Handicrafts,
11, Government Place East,
Calcutta-700001.

25. M/s. Priya Gopal Bishoyi,
70, Pandit Purshottam Roy Street,
Calcutta-700007.

26. M/s. Murshidabad Silk Co. Society,
Murshidabad,
(West Bengal).

27. M/s. Silk Co. Op. Society, (Handloom),
Vishnupur,
Bankura Dist.,
West Bengal.

28. M/s. West Bengal Khadi and Village Industries Board,
No. P. 8, Hide Line, Near Lalbazar,
Calcutta.

29. M/s. Silk Khadi Seva Mandal,
Bishnupur, Bankura Dist.,
West Bengal.

30. M/s. Indian Textiles Co. (P) Ltd.,
Great Eastern Hotel,
Arcade, Calcutta.

31. Government Silk Weaving Factory,
Rajbagh, Srinagar (Kashmir).

32. M/s. Silk Handloom Weavers' Co-op., Srirambagh,
Srinagar (Kashmir).

33. M/s. Kapur Silk Mills,
Barbershah,
Srinagar (Kashmir).

34 Hindustan Handloom & Handicrafts,
Post Box No. 636,
10, Government Place East,
Calcutta-700001.

I. ASSOCIATION OF ONE OR OTHER SECTOR OF SERI. AND SILK INDUSTRY

1. M/s. Mysore State Silk
Handloom Weaver Co-operative Society Ltd.,
1st Cross,
Sampige Halli,
Bangalore-560027.

2. Shri Chowdeswari Prasanna,
Silk Handloom Weavers
Co-operative Society Ltd.,
Srirampuram,
Bangalore-560021.

3. Silk Handloom Weavers Co-operative Society Ltd.,
Armoor Post, Nizambad Dist.,
(Telangana Area) (A.P.).

4. Kamakshiamman Silk Handloom
Weavers Co-operative Products & Sales Society Ltd.,
Mahatma Gandhi Road,
Kancheepuram, Tamil Nadu.

*5. Kancheepuram Murugan Silk
Handloom Weavers Co-op. Society,
Mahatma Gandhi Road,
Kancheepuram, Tamil Nadu.

6. The Salem Silk Handloom
Weavers Co-op. Production & Salem Society,
Salem (T. Nadu).

7. Madhya Sualkuchi Resham
Sambhag Samiti, H.O. P.O.
Sualkuchi (Assam).

8. Khadi Gramodyog,
Lakshimi Narayan Mandir,
Bhagalpur (Bihar).

9. The Mysore Principal Silk
Handloom Weavers Co-op. Society Ltd.,
Jumma Masjid Road,
P. B. No. 784,
Bangalore-560002.

10. Silk Handloom Weaving
Co-operatives Society Ltd.,
Dharmavaram Post (A. P.).

11. Silk Handloom Weaving
Co-operative Society,
Raparti (W. Godavari) Dist.,
Andhra Pradesh.

12. The Darasuram Silk Handloom Weaving Co-operative Production & Sales Society Ltd.,
Darasuram Post,
Tanjore Dist., Tamil Nadu.

*13. The Thirubhuvanam Silk
Handloom Weavers Co-operative
Products & Sale Society Ltd.,
Thirubhuvanam, P.O.,
Tanjore Dist.
(Tamil Nadu).

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14. Asni Silk Handloom Weavers
Co-operative Production & Sales Society,
Arni Post, South Arcot Dist.
(T. Nadu).

15. Assam Co-operative Silk House,
Panbazar, *Gauhati*,
Assam.

16. Nargah Noor Weavers Co-operative Society,
P. O. Nargah,
Bhagalpur Dist. (Bihar).

17. Muktanagar Weavers Co-operative Society,
Muktanagar P.O., Bania Randha,
Cuttack (Orissa).

18. Nupatna Weavers Co-operative Society,
P. O. Naupatna, Cuttack
(Orissa).

19. Bastuhara Samalya Samity,
Ramkrishan Colony,
Malda P. O. (W. B.).

20. Gandhi Ashram,
Tantipara,
P.O. Tantipara,
Dist. Birbhum (W. B.).

21. Silk Khadi Seva Mandal,
Bishnupur S.E. Rly.,
Dist. Bankura (W. B.).

22. The Mysore State Silk
Marketing Co-operative Society Ltd.,
Kamdhenu Building,
Avenue Road,
Bangalore-560007.

23. Indian Silk Association,
13-N, Cannought Circle,
New Delhi-110001.

*24. The Mysore Raw Silk
Merchants Association,
Resham Mahal, Kempe Gowda Road Cross,
Bangalore-560002.

25. Anandpur Weavers Co-operative Society Ltd.,
P. O. Anandpur, Dist.

26. Kulgi Weavers Co-operative Society Ltd.,
Kulgi P.O., Bahalda Dist.,
Mayurbhag (Orissa).

27. Gandhi Ashram,
Sonemukhi P.O., Sonemukhi,
Dist. Bankura (W. B.).

28. Gandhi Ashram,
P. O. Bishnupur,
Dist. Bankura (W.B.).

29. M/s. J & K Handloom Fabrics Marketing Co-operative,
Society Ltd.,
Lal Chowke, Srinagar
(Kashmir).

30. Silk & Art Silk Mills,
Research Association,
Dr. Annie Besant Road,
Worli, Bombay-400018.

31. The Bhagalpur Silk Mills,
Owners Association,
Bhagalpur (Bihar).

32. Mysore Silk Association,
Research Mahal, Kempe Gowda Road Cross,
Bangalore-560002.

33. The President,
Charkah Reelers Association,
Chickaballapur Post
(Karnataka).

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J. STATE GOVERNMENTS

*1. The Director of Sericulture and Weaving,
Government of Assam,
Shillong.

*2. Secretary to the Government of Tamil Nadu,
Industries Department,
Fort St. George,
Madras-9, TAMIL NADU.

3. Secretary to the Government of Punjab,
Industries Department,
Chandigarh.

4. The Director of Industries,
Government of West Bengal,
New Secretariat Building,
9th Floor, Kiron Sankar Road,
Calcutta.

*5. The Secretary to the Government of Madhya Pradesh,
Commerce and Industries Department,
Civil Secretariat,
Bhopal.

*6. The Secretary to the Government of Kerala,
Industries (E) Department,
Trivendrum.

7. The Secretary to the Government of Maharashtra,
Industries & Labour Department,
Sachivalaya, Bombay-32.

*8. The Secretary to the Government of Andhra Pradesh,
Industries and Commerce Department,
Hyderabad.

9. The Secretary to the Government of Bihar,
Department for Industries
and Technical Education,
Patna.

10. Commissioner and Director of Industries,
Government of Uttar Pradesh,
Kanpur, Uttar Pradesh.

*11. The Secretary to the Government of Mysore,
Commerce and Industries Department,
Vidhan Sabha,
Bangalore.

12. The Secretary to the Government of Himachal Pradesh,
Industries Department,
Simla-2.

*13. The Secretary to the Government of Jammu & Kashmir,
Industries and Commerce Department,
Jammu.

8—8 T. C. Bom./74

14. The Secretary,
Tripura Administration,
Department of Industries,
Agartala.

15. Secretary to the Government of Orissa,
Department of Industries,
Mining and Geology,
Bhubaneshwar.

16. The Secretary to the Government of Manipur,
Industries Department,
Imphal.

17. The Secretary to the Government of Haryana,
Industries Department,
Chandigarh.

18. The Secretary to the Government of Meghalaya,
Industries, Sericulture and Weaving Department,
Shillong.

K. DIRECTOR OF SERICULTURE IN THE VARIOUS STATES

1. Director of Handlooms and Textiles,
Government of Andhra Pradesh,
3-4-852/Hq. Barkatpura,
Hyderabad-500027.

2. The Director of Industries,
Government of Bihar,
Patna (Bihar).

3. The Director of Industries,
Government of Madhya Pradesh,
Bhopal (M. P.).

4. The Industries Commissioner,
Department of Industries,
New Secretariat Annexe,
Bombay-400032 (Maharashtra).

5. The Additional Registrar of Co-operative Societies and
Director of Textiles,
Government of Orissa,
Bhubaneswar (Orissa).

*6. The Director of Industries,
Government of Uttar Pradesh,
Kanpur (U. P.).

*7. The Director of Industries,
Government of Himachal Pradesh,
Simla-4 (H. P.).

8. The Director of Industries,
Tripura Administration,
Agartala (Tripura).

9. The Director of Industries,
Government of Nagaland,
Kohima (Nagaland).

10. Superintendent of Sericulture,
Industries Department,
Government of Misoram,
Aizawl. (Mijoram).

11. The Director of Sericulture
and Weaving,
Govt. of Assam,
Gauhati, Rajgarh (Assam).

12. Adviser to the Govt. of Jammu and Kashmir,
Sericulture Development Dept.,
M/s. J. & K. Industries Ltd.,
Srinagar (Kashmir).

13. The Director of Industries and Commerce,
Govt. of Tamil Nadu,
Chepauk,
Madras-5 (T.N.).

*14. The Director of Sericulture,
Govt. of Mysore,
Multistoreyed Bldg.,
4th floor, Vidhana
Veedhi,
Bangalore-560001.

15. The Director of Industries,
Govt. of Punjab,
Chandigarh (Punjab).

16. The Director of Cottage and Small Scale Industries,
New Secretariat Bldg.,
1-Kiran Shankar Roy Road,
(9th floor),
Calcutta-700001 (W. B.).

17. The Director of Industries,
Govt. of Manipur,
Imphal (Manipur).

18. The Superintendent of Sericulture,
Govt. of Arunachal Pradesh,
Pashighat.

*19. The Joint Director of Industries (Sericulture),
Govt. of Meghalaya,
Shillong.

L. SEMI-GOVERNMENT DEPARTMENTS

1. The State Trading Corporation of India,
Express Building,
9 & 10, B. S. Z. Marg,
Mathura Road,
New Delhi.

2. Textile Commissioner,
New C. G. O. Building,
New Marine Lines,
Bombay-20.

3. The Chief Executive Director,
Khadi Village Industries Commission,
'Gramodaya' Erla Road,
Bombay-59.

* Director,
Indian Standard Institution,
Nanak Bhavan,
9, Bahadur Shah Zafar Marg,
New Delhi.

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5. The Secretary,
All India Handloom Board,
New Marine Lines,
Bombay-20.

*6. The Secretary,
Central Silk Board,
Maghadoot, 95, B; Marine Drive,
Bombay-2.

APPENDIX II

(*Vide* Paragraph 2.3)

List of persons who attended the Commission's Public Inquiry on 21st June 1974.

A. *State Government Department :*

1. Shri V. S. Ramamoorthy	Representing	Govt. of Karnataka, Bangalore.
2. Shri M. C. Nabi	,,	Jammu & Kashmir Govt. Filatures, Kashmir.
3. Shri K. N. Venkatesan	,,	Govt. of Tamil Nadu.
4. Smt. S. S. Bedekar	,,	Govt. of Madhya Pradesh.
5. Shri Sathe	,,	Govt. of Maharashtra.
6. Shri C. M. Barthwal	,,	Govt. of Uttar Pradesh.
7. Shri P. S. Nadkarni	,,	Maharashtra State Khadi & Village Industries Board, Bombay.
8. Shri M. B. Kate		

B. *Importers/Dealers :*

9. Shri B. M. Chinai	Representing	Nagindas Foolchand Chinai & Co., Bombay.
10. Shri S. J. Chinai		

C. *Research Institutes/Association :*

11. Shri N. M. Patel	Representing	Silk & Art Silk Mills Research Association, Bombay.

D. *Central Government Department :*

12. Shri Inder J. Malhotra, M. P.	Representing	Central Silk Board, Bombay.
13. Shri S. Muniraju		
14. Shri S. R. Ullal		
15. Shri A. R. S. Gopalachar		
16. Shri M. S. Jolly		
17. Dr. K. Sengupta		
18. Shri G. S. Abhyankar	Representing	Indian Standard Institution.

APPENDIX III-A

(*Vide* Paragraph 3.2.1.1)

Statement showing statewise area under mulberry cultivation

Sl. No.	Name of the State	Area under mulberry cultivation (in hectares)								
		1968			1972			1973		
		Rainfed	Irri-gated	Total	Rainfed	Irri-gated	Total	Rainfed	Irri-gated	Total
1	2	3	4	5	6	7	8	9	10	11
1	Andhra Pradesh	98	377	475	..	1,124	2,124	..	2,615	2,615
2	Assam	970	..	970	600	..	600	700	..	700
3	Bihar	130	8	138	100	15	115	100	15	115
4	Madhya Pradesh	300	..	300	100	..	100	110	100	210
5	Karnataka	67,500	16,300	83,800	70,297	24,395	94,692	69,761	26,380	96,141
6	Punjab	Nil	Nil	Nil	38	38	76	38	38	76
7	Tamil Nadu	1,629	83	1,772	2,821	500	3,321	3,313	532	3,845
8	Uttar Pradesh	..	109	109	53	142	195	53	171	224
9	West Bengal	5,482	85	5,566	5,260	506	5,766	5,200	50	
10	Himachal Pradesh	..	..	..	119	42	161	170	64	234
11	Manipur	153	..	153	260	..	260	260	..	260
12	Tripura	Nil	Nil	Nil	3	..	3	3	..	3
13	Meghalaya	..	..	..	66	..	65	75	..	75
	TOTAL	76,322	16,962	93,284	79,717	27,762	1,07,479	79,843	30,421	1,10,264

APPENDIX III-B

(*Vide* paragraph 3.2.3)

Statement showing statewise number of mulberry trees

Sl. No.	Name of State	1968	1972	1973
1	Andhra Pradesh	1,000	340	456
2	Assam	8,55,000	5,00,000	6,75,000
3	Bihar	5,000	4,139	N.A.
4	Jammu	20,00,000	5,30,000	3,30,000
5	Kashmir		24,00,000	24,00,000
6	Karnataka	10,000	41,740	38,285
7	Punjab	1,10,000	1,20,000	1,25,000
8	Tamil Nadu	N.A.	4,000	5,000
9	Uttar Pradesh	67,000	6,70,000	6,70,000
10	West Bengal	4,14,000	1,63,460	1,63,460
11	Himachal Pradesh	1,26,000	1,43,080	1,46,385
12	Manipur	80,000	1,60,000	1,60,000
13	Tripura	N.A.	300	410
14	Meghalaya	N.A.	78,000	90,000
	TOTAL	36,68,000	46,15,059	48,03,996

APPENDIX IV

(*Vide* Para 3.4.2.1)

Statewise Production of Mulberry raw silk

(N.A. : Not Available)
(—: NIL)

		Year	Karna-taka	Uest Bengal	Jammu & Kashmir	Wttar Pradesh	Hima-chal Pra-desh	Tamil Nadu	Other states	Total
1	2	3	4	5	6	7	8	9	10	11
Filature :										
	(i) No. of Basins	1972	1,260	100	658	30	20	..	10	2,048
		1973	1,494	100	658	30	20	..	10	2,312
	(ii) Production (Lakh kg.) . .	1972	1.06	0.02	0.53	0.04	0.02	..	..	1.67
		1973	1.59	0.03	0.61	0.04	0.01	..	..	2.28
Cottage Basin										
	(i) No. of Basins	1972	2,292	102	..	10	..	65	N.A.	4,469
		1973	7,704	102	..	10	..	84	2.00	7,902
	(ii) Production (Lakh kg.) . .	1972	6.15	0.09	..	0.01	..	0.04	0.01	6.30
		1973	6.85	0.27	..	0.01	..	0.04	N.A.	7.17
Charkha :										
	(i) Number	1972	4,688	4,621	..	..	..	10	..	9,319
		1973	7,570	4,621	..	..	..	14	..	12,205
	(ii) Production (Lakh kg.) . .	1972	11.12	1.66	..	..	..	0.02	0.10	12.89
		1973	11.60	2.41	..	..	..	0.03	0.16	14.20
	TOTAL MULBERRY SILK PRODUCTION (Lakh kg.)	1972	18.33	1.77	0.53	0.05	0.02	0.06	0.10	20.86
		1973	20.04	2.71	0.61	0.05	0.01	0.07	0.16	23.65

APPENDIX V

(*Vide* para 3.4.2.3.)

List of Filature units with their Installed Capacity and Production

Sl. No.	Name and Address of the Filature	Installed Capacity (No. of Basins)	Production of Raw Silk (In kg.)	
			1972	1973
I. KARNATAKA STATE				
1	Govt. Silk Filature, Kollegal Mysore Dist. Karnataka.	464	26,434	29,869
2	Govt. of Silk Filature, T. Narsipur, Mysore Dist.	212	20,846	10,348
3	Govt. Silk Filature, Kanakapura, Karnataka.	200	21,592	23,394
4	Govt. Silk Filature, Santhemarahally, Chamarajanagar Taluka, Mysore Dist., Karnataka.	104	11,406	11,968
5	Govt. Silk Filature, Mysore-4, Karnataka.	90	9,046	10,034
6	Govt. Silk Filature, Mumballi, (Mysore Dist.) Karnataka State.	168	5,694	7,110
	Govt. Silk Filature, Chamarajanagar, Mysore Dist. Karnataka State.	100	9,920	11,357
	Kisan Silk Industries , Mellur, Siddlaghatta.	48	2,986	4,148
II. UTTAR PRADESH				
1	Government Central Silk Farm, Premnagar, Dehradun (U.P.).	30	4,013	3,962

APPENDIX V—*Contd.*

Sl, No.	Name and Address of the Filature	Installed Capacity (No, of Basins)	Production of Raw Silk (In kg,)	
			1972	1973
III.	WEST BENGAL			
1	State Filature, Madhughat, Dist. Malda, West Bengal.	100	2,292	3,474
IV.	JAMMU & KASHMIR			
1	The Sericulture Development Department, Govt. of Jammu and Kashmir Industries & Commerce Deptt., Jammu.	164	18,028*	19,474*
2	Kashmir Sericulture Department, Govt. of Jammu & Kashmir, Srinagar, Kashmir.	494	44,977*	44,829*
V.	HIMACHAL PRADESH			
1	Silk Filature, Nurpur (H.P.).	20	2,220	1,310
VI.	MADHYA PRADESH			
	Govt. Silk Factory, Yeshwantsagar, Hatod (Indore Dist.).	10	1,000	1,000
		2,204	1,80,454	1,91,277

*Relate to financial years 1972-73 and 1973-74 respectively.

APPENDIX VI

(*Vide* paragraph 8.1)

Quarterly maximum and minimum prices of Silk and Sericultural products

(Rs. per Kg. unless otherwise specified)

Products & Varieties	1972							
	January	March	April	June	July	Sept.	Oct.	Dec.
BANGALORE MARKET—								
Reeling Cocoons, Sidlaghatta	7·30	15·96	7·80	16·40	7·60	17·10	6·85	20·00
Filature Silk, Kollegal	148·00	185·00	180·00	185·00	185·00	215·00	200·00	220·00
Cottage Basin, Medium	172·00	200·00	195·00	214·00	205·00	217·00	206·00	230·00
Charkha 1st Quality	133·00	171·00	162·00	172·00	169·00	180·00	164·00	182·00
Silkwaste Cottage Basin	5·25	7·60	5·25	8·50	5·00	8·50	7·20	9·35

VARANASI MARKET—								
Imported Korean Filature	285·00	315·00	288·00	317·00	280·00	370·00	375·00	420·00
Kashmir Filature 20/22	167·00	185·00	170·00	193·00	180·00	215·00	220·00	280·00
Mysore Filature	153·00	190·00	165·00	190·00	177·00	215·00	190·00	220·00
Cottage Basin Bangalore	162·00	190·00	140·00	190·00	150·00	200·00	180·00	225·00
Charka Malda	105·00	145·00	110·00	190·00	130·00	185·00	100·00	145·00
MALDA MARKET—								
Cottage Basin (Yellow)	128·00	162·00	165·00	185·00	175·00	185·00	165·00	175·00
Charka (Tana)	140·00	165·00	165·00	180·00	174·00	180·00	135·00	163·00
Silkwaste	N.A.			N.A.		N.A.		N.A.
BHAGALPUR MARKET—								
Reeling Daba (Per Kahan)	181·00	192·00	175·00	207·00	195·00	230·00	197·00	223·00
Tasar Silk (Twisted)	135·00	165·00	140·00	185·00	167·00	185·00	170·00	185·00
Tasar Spun Silk Yarn (Chicha)	60·00	80·00	71·00	105·00	75·00	105·00	75·00	90·00
Tasar Waste	22·00	25·00	22·00	36·00	25·00	37·00	25·00	35·00
Spun Silk Yarn :								
Channapatna	115·00	120·00	115·00	120·00	115·00	120·00	115·00	135·00
Assam Spun Silk 2/210	115·00	120·00	115·00	120·00	115·00	120·00	115·00	125·0

APPENDIX VI—*Contd.*

(Rs. per Kg. unless otherwise specified)

Products & Varieties	1973							
	January	March	April	June	July	Sept.	Oct.	Dec.
BANGALORE MARKET—								
Reeling Cocoons, Sidlaghatta	7·90	20·50	9·25	22·60	10·50	26·95	11·00	26·65
Filature Silk, Kollegal	230·00	235·00	230·00	240·00	240·00	300·00	275·00	290·00
Cottage Basin Medium	233·00	255·00	235·00	248·00	254·00	300·00	263·00	295·00
Charkha 1st Quality	190·00	200·00	193·00	210·00	210·00	256·00	221·00	265·00
Silkwaste Cottage Basin	7·00	13·00	7·05	19·00	7·05	38·00	7·50	28·00

VARANASI MARKET—								
Imported Korean Filature	385·00	444·00	430·00	493·00	425·00	563·00	470·00	600·00
Kashmir Filature 20/22	250·00	295·00	265·00	300·00	270·00	358·00	320·00	370·00
Mysore Filature	215·00	255·00	225·00	245·00	220·00	240·00	N.A.	
Cottage Basin Bangalore	230·00	260·00	210·00	260·00	240·00	298·00	190·00	300·00
Charka Malda	120·00	150·00	150·00	200·00	150·00	200·00	140·00	225·00
MALDA MARKET								
Cottage Basin (Yellow)	167·00	220·00	220·00	250·00	225·00	257·00	225·00	225·00
Charka (Tana)	160·00	178·00	210·00	230·00	195·00	240·00	230·00	250·00
Silkwaste	1·25	2·50	1·25	2·85	3·00	4·50	4·00	5·00
BHAGALPUR MARKET								
Reeling Daba (Per Kahan)	165·00	190·00	165·00	200·00	165·00	185·00	145·00	178·00
Tasar Silk (Twisted)	135·00	200·00	130·00	200·00	135·00	200·00	130·00	200·00
Tasar Spun Silk Yarn (Chicha)	65·00— 95·00		60·00—100·00		65·00—100·00		60·00—100·00	
Tasar Waste	30·00— 40·00		30·00—40·00		34·00— 41·00		30·00— 36·00	
Spun Silk Yarn :								
Channapatna	125·00—135·00		135·00—140·00		150·00—155·00		160·00—175·00	
Assam Spun Silk 2/210	115·00—125·00		125·00—140·00		140·00		140·00	

APPENDIX VI—*Contd.*

Products & Varieties	1972			
	January March	April June	July Sept.	Oct. Dec.
		Prices of Silk Fabrics		
BANGALORE MARKET—				
(Rs. per metre)				
Plain Fabrics Medium . . .	13·50 15·25	15·50 16·50	16·00 17·00	16·50 18·50
Delux 112-114 width 90-100 gram weight.	22·00—25·00	25·00—25·00	25·00—26·00	25·00—28·00
Sarees-Medium 40-50 gram weight .	15·00—16·00	15·00—16·00	15·00—16·50	15·00—16·50
BHAGALPUR—				
Tasar Silk Fabrics :				
Tasar reeled x Tasar Chicha 6 to 7 lb. weight	17·00—25·00	18·00—25·00	18·00—26·00	20·00—26·00
Matka x Matka	12·00—15·00	12·00—16·00	12·00—16·00	12·00—18·00

APPENDIX VI—*Contd.*

Products & Varieties	1973			
	January—March	April—June	July—Sept.	Oct.—Dec.
	Prices of Silk Fabrics			
BANGALORE MARKET—				
(Rs. per metre)				
Plain Fabrics Medium	17·50— 19·00	18·00— 19·50	19·00— 22·00	20·00— 22·00
Delux 112-114 width 90-100 gram weight.	26·50— 28·50	26·00— 28·00	25·00— 30·00	25·00— 30·00
Sarees-Medium 40-50 gram weight	15·50— 17·50	16·50— 17·50	17·00— 20·00	17·00— 19·50
BHAGALPUR—				
Tasar Silk Fabrics :				
Tasar reeled x Tasar Chicha 6 to 7 lb. weight.	20·00— 25·00	22·00— 24·00	22·00— 23·00	20·00— 25·00
Matka x Matka	15·00— 20.00	15·00— 23·00	22·00— 23·00	18·00— 29·00

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